

2009 VICTORIAN BUSHFIRES ROYAL COMMISSION

Letters Patent Issued 16 February 2009

Response of the Victorian National Parks Association Inc. to the Submissions of Counsel Assisting on Planned Burning

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1. These submissions are made on behalf of the Victorian National Parks Association Inc (“VNPA”) in response to the submissions of Counsel Assisting on Planned Burning dated 22 March 2010.

Introduction

General comments on recommendations proposed by Counsel Assisting

2. With some exceptions, the VNPA supports the recommendations set out in Counsel Assisting’s Planned Burning Submission.
3. The most important exceptions are with respect to Counsel Assisting’s recommended state wide hectare target for planned burning. The reasons for the VNPA’s disagreement with this recommendation and a proposed alternative recommendation are discussed in detail below.
4. Other differences relate to the degree of emphasis and detail in Counsel Assisting’s recommendations regarding matters such as implementation, research, evaluation and monitoring and resources.
5. The VNPA submits that the following general propositions should inform the Commission in preparing its final report:
 - a. There is a clear need to establish a process which will allow planned burning management in Victoria to move from uncertainty to a clearly science-based program.

- b. The evidence demonstrates effectiveness of prescribed burning as a risk mitigation measure, however planned burning needs to be recognised as one of a range of approaches that also includes land use planning and building standards. Planned burning can reduce but not eliminate the risk of unplanned fires and its limitations need to be recognised.
- c. Planned burning should be undertaken as a program with clear and rational targets that are appropriate to risk mitigation and environmental objectives and that promote transparency and accountability in their implementation.
- d. Evaluation and monitoring are critical to the effective implementation and management of planned burning. There is a lack of information on the environmental consequences of planned burning across all vegetation types. Any increase in planned burning needs to be accompanied by a commensurate increase in scientific research, monitoring and evaluation.
- e. There is a diverse range of vegetation types in Victoria. These vegetation types have very different ecological and fire risk attributes. This diversity needs to be recognised in any recommendations that are intended to apply to the whole of the State.
- f. At present a lack of resources available to DSE is the most critical limiting factor in the implementation of planned burning and associated environmental monitoring and this must be addressed.

The need for a "programmatic" approach

- 6. The VNPA agrees with Counsel Assisting's submission that the evidence before the Commission demonstrates the important role of planned burning in Victoria for both fuel management and ecological management.
- 7. According to experts such as Williams, the factor that distinguishes jurisdictions that carry out planned burning well is that these jurisdictions adopt a "programmatic" approach (T1532:18-27 Williams).
- 8. A programmatic approach is based on a long term strategy rather than an annual program. A programmatic approach incorporates continual monitoring and evaluation. Targets need to be considered in the context of a programmatic approach:

We have a lot of examples in the US where targets have become an opportunity to pick off the low-hanging fruit, so to speak. I think they become valuable when they are lent context. I believe our discussions on Saturday

reflected a high degree of confidence among this group that prescribed burning at about 5 to 10 per cent per annum across the burnable estate was a good place to start; that targeting the foothills, eucalypt and high-risk fire regimes at larger sizes, strategically placed across the landscape and treated at adequate intervals across both public and private lands, nevertheless across all ownerships, were important places to start.

In our country we are coming to recognise that no option, including prescribed burning, is without some kind of risk. Our real objective here in beginning this discussion has to do with finding solutions that recognise there's always risk, but that we are after trying to minimise overall long-term impacts that socially at the human level, economically and ecologically have become largely intolerable.

I think in my experience, watching areas that take this problem on programmatically, using a program approach where budgets and personnel skills and monitoring and evaluation are ongoing are essential elements. In places where we have done a little more burning and attempted to treat the problem on a year-to-year basis, on a catch as catch can basis, we have failed.

(T15198:16 Williams)

9. Although there is little evidence before Commission about the implications of climate change for planned burning and fuel management, a program based approach including monitoring and adaptive management will be all the more necessary in the context of the uncertainties and potentially rapid changes predicted.
10. The submission from Counsel Assisting contains a detailed analysis of the current state of the planned burning program in Victoria (paragraphs 9.1 – 9.5). This analysis is followed by recommendations for a statewide hectare target (Proposed recommendation 10.19). While it is agreed that the submission is an accurate summary of the evidence presented to the Commission, the VNPA submits that recommendations should be framed around the nature of the programmatic approach required rather than simply a statewide hectare target.

11. The VNPA submits that the two most important conclusions that can be drawn from the evidence about the current planned burning program are:
 - a. The lack of any clear strategy.
 - b. The lack of resources.
12. Significantly, Mr Fogarty, upon returning to provide evidence about roadsides, was asked by the Chairman to respond to the proposals put forward by the expert panel in the context of funding and staffing. His evidence was (T15838:8 Fogarty):

I think Mr Williams' point about this needing to be a programmatic approach with the right people to have that sort of oversight, understand how risk is changing, understand how our management is impacting on risk and ecological outcomes of the landscape level and then to deliver that on the ground is important and I think we have set the framework in place to do that with our bushfire strategy in some of the tools and planning processes that we are developing. But we are, as I mentioned previously, at capacity.

13. It is these systemic level issues that need to be addressed.

Targets

14. The VNPA agrees with the submission by Counsel Assisting that the Commission should recommend the adoption of targets for the State's planned burning program. The VNPA, however, disagrees with the recommendations as to the nature of the target that should be recommended.
15. The recommendations from Counsel Assisting with respect to targets for planned burning are as follows (Submission by Counsel Assisting, 10.19 a and b, 19.1 and 19.2):

It is essential that the DSE annual performance of planned burning of the public land estate be measured against a statewide target of hectares burned.

and

The annual target for planned burning should be between 5% and 10% of the available public land estate with an immediate goal of achieving a minimum annual rate of 385,000 hectares (5%) of planned burning.

16. As the second of these two paragraphs demonstrates, these submissions proceed on the basis that targets expressed in terms of percentages and hectares are interchangeable or simply two ways of saying the same thing. In fact targets expressed as percentages of a treatable unit and hectares burned are conceptually different and the differences between the two have important implications for the implementation of a planned burning program.
17. Targets ought to be durable in the sense that they form part of a program that adopts a systematic approach to implementation that includes long term monitoring and continual refinement both with respect to the effectiveness of the program in reducing risk and in terms of the programs environmental impacts.
18. Appropriate targets are targets that are a meaningful and measurable indicator of the objectives that are sought to be met, whether these objectives are risk reduction, ecological or some combination of the two.
19. The expert panel in their joint statement and in their evidence before the Commission do support the need for targets, however notably their recommendations are expressed in terms of percentages (TEN:227.001.001 “Context” and paragraphs 11, 20(b)). They did not recommend a statewide hectare target.

Problems with a statewide hectare target and advantages of percentage targets

20. There are significant problems with hectare targets generally and the proposed statewide hectare targets in particular.
21. Hectare targets can lead to perverse outcomes in fuel reduction and biodiversity management, and of themselves do not promote and may actually undermine the programmatic approach necessary (see evidence from Williams at paragraph 8 above).
22. A statewide hectare target does not immediately translate into a hectare targets at a local level. The application of burns in one part of the state can be compromised by any fluctuation in burns elsewhere. If conditions are unsuitable for burning in the Mallee, for example, then there is a demand to increase the number of hectares burnt, say, in East Gippsland. Similarly, if more extensive burns take place in the Mallee in a given year, the need to burn in other areas to meet a statewide hectare target decreases.
23. A statewide hectare target could encourage burning to take place at the easiest (and least expensive) places to generate large burns, rather than the more difficult areas that require large resources. As pointed out by Mr Williams (T:15198:17) “We have a lot of examples in the US where targets have become an opportunity to pick off the low hanging fruit, so to speak.”

24. In his evidence, Mr Fogarty of DSE also agreed that hectare targets could create perverse incentives and were not necessarily a meaningful indicator of the reduction in risk. (T:14795:31 – 14178:10 Fogarty).
25. On the other hand percentage targets can easily be expressed, applied and reported against at local, regional and statewide scales. Such burn targets are independent of any variation in targets or actual burns elsewhere in the State.
26. Expressing targets regionally and locally as a percentage, allows reporting and assessment of where targets are not being reached. This allows an informed investigation of why they are not being reached (the occurrence of recent wildfire, new local information, inadequate resources or unsuitable weather etc.). Importantly, as ecological and fuel reduction effects of fire in different ecosystems are monitored and evaluated, building an understanding of appropriate targets in different regions, the locally applied percentage target (which may become higher or lower) can be adapted without adversely affecting burn targets in other areas.
27. Percentage targets, particularly when refined over time to be locally applicable targets, reflect rates of burning which when considered in the long term are more consistent with the importance of focussing on appropriate burning regimes.
28. Hectare targets, on the other hand, only measure the amount of activity rather than effectiveness or whether risk reduction objectives are being achieved. This measure of activity might have some utility in limited circumstances. For example the expert panel expressed the opinion that the current amount of hectares burned was inadequate as it amounts to less than their recommended percentage (TEN:227.001.00013, Summary of Discussion by Panel, para.14). However this analysis does not mean that a target expressed in hectares is the most appropriate, particularly if the objective is to hold DSE accountable for achieving an optimal outcome rather than simply identifying gross shortcomings.
29. The VNPA submits that the Commission should pay particular regard to the evidence of those who have knowledge and experience with respect to program implementation. Mr Fogarty explained in evidence some of the difficulties with hectare targets (T:14795:31 – 14178:10 Fogarty,).
30. Even if this evidence is to be discounted on the basis that it is to be explained in terms of an unwillingness to be held accountable by DSE, then the Commission should have regard the evidence regarding the Western Australian program which is based on a burning regime of approximately 7% to 8% of the forested landscape in accordance

with burn size and intensity prescriptions rather than being driven by a statewide hectare target. (WIT.135.001.0014).

31. The other witness with particular expertise in program implementation was Mr Williams. There is nothing in his evidence given as part of his role on the expert panel or when he was called as an expert that suggests that a statewide hectare target has utility. His evidence with respect to targets and a programmatic approach have already been mentioned (paragraph 8 above).

Accountability and findings of previous inquiries

32. The VNPA supports the need for accountability in all aspects of public land and biodiversity management including the implementation of the planned burning program.
33. Accountability is important, however it is important that the Department is held accountable to the right measures and that the accountability encourages the meeting of program objectives. For the reasons outlined above, a statewide hectare target is inappropriate.
34. One attraction of a statewide hectare target is that it is a transparent and easily understood measure. This was the conclusion reached by the Environment and Natural Resources Committee of the Victorian Parliament (ENRC), for instance (discussed at paragraphs 9.25 and 9.26 of the Submission of Counsel Assisting).
35. However, as Counsel Assisting's submission recognises, ENRC was also aware that there is no direct relationship between hectares burned and the risk reduction objectives sought to be achieved.
36. The utility of statewide or agency wide targets was considered by CoAG in its National Inquiry on Bushfire Mitigation and Management. Their report (at page 105. RSCH.004.003.1961, TEN.004.002.0282 (part only)) contains the following findings:

Despite the complexities associated with measuring the effectiveness of risk modification through fuel-reduction burning, historically this has been attempted almost exclusively by measuring the gross area burnt each year against area targets. There are many reasons why a gross area target might not be met in a particular year, most commonly the weather not being suitable (either a wet winter or a drought period) and large-area, unplanned fires in the previous year achieving a great deal of fuel reduction themselves. Moreover, the highest priority areas for risk reduction are likely to be the more challenging, urban–bushland interface parts of the landscape—

not the large areas of public land in the easiest terrain, where the risk to life and property is much lower. For these reasons, at a state or regional level the area actually treated in fuel-reduction programs in a particular year bears little direct relationship to the real reduction in risk.⁴⁰

Finding 6.6

Comparing the gross area treated annually in fuel-reduction burning—that is, for a whole agency, region or state—with a published target is not a good basis for assessing performance and is likely to be counterproductive.

37. In 2003 the Auditor General’s review of Fire Prevention and Preparedness also cautioned against measuring performance against hectare targets rather than in terms of risk reduction – “a preoccupation with achieving fuel reduction targets measured purely in hectares could lead to an emphasis on low cost rather than high risk areas”. (TEN.216.001.0066).
38. It is not suggested that Counsel Assisting’s recommendations considered in their entirety do not recognise or seek to address these and other issues with a statewide hectare target. However it is submitted that the emphasis in the proposed recommendations at present on a statewide hectare target is not the best way to respond to the need to develop a much more systematic and program based approach to risk reduction.
39. Consistent with the analysis above, the percentage targets, any changes to those targets, the reasons for those changes, and DSE’s capacity to achieve targets should be set out in DSE’s annual report. The VNPA submits that this approach would be a better approach to accountability than simply reporting against a Statewide hectare target as recommend by Counsel assisting.
40. The VNPA submits that the Commission should also give consideration to other accountability measures that would reinforce and supplement the recommendation to report with respect to targets in DSE’s annual report. In particular:
 - a. There should be a formal re-assessment by DSE of prescriptions and targets for planned burning, including fuel reduction burns and ecological burns, every four years.
41. There should be an independent audit by an accredited auditor, of the effectiveness of DSE’s planned burning program, every four years. The audit should take place in the year before DSE’s re-assessment of prescriptions and targets.

The need for more research, evaluation and monitoring of the impact of planned burning on biodiversity

42. Maximising the safety of people who live in fire-prone areas, as well as securing the future of Victoria's bio-diversity is very difficult. While there may be necessary trade-offs there, the community does have the right to be fully informed of what those compromises may be, and where any uncertainties of impacts on biodiversity may occur.
43. Dr Bradstock makes it clear that even in the relatively well-studied dry foothill forests (T:15247:15): "...there is very little information about animals." Dr Clarke agreed (T:15247:27-30). Commissioner McCleod then notes (T:15248:9-12) that Dr Clarke had indicated earlier "that the level of scientific understanding from an ecological point of view of mammals is very, very scant at the moment." Dr Clarke responds (T:15248:13-14): "Yes, and I wouldn't just single out mammals. I would go beyond that."
44. Dr Gill, in his January 2010 statement addressing a series of questions posed by the Commission's Counsel Assisting, titled *The Place of Prescribed Fire in the Management of Fire-prone Assets in Victoria*, clarifies the extent of our lack of knowledge of the ecological impacts of fire (EXP.015.001.0040):

"Biodiversity is not just the plants and animals we normally see. There are many more species of invertebrates (such as insects) and fungi in Australia than vertebrate animals or vascular plants, let alone microbes and the likes of mosses and lichens. There are many interactions between species from the different groups as well as within them."
45. He concludes his introduction by saying that (EXP.015.001.0015):

"There are many semantic problems in fire matters... suggesting that we are very much in a building phase of scientific knowledge, rather than in a mature phase."
46. In the VNPA's Supplementary Submission they submitted papers by two groups of eminent scientists, one on fire and fungi, and the other on fire and invertebrates. These papers reinforce that our knowledge on these two important groups of species is sorely lacking, and clearly support the position of Dr Gill and Dr Clarke in this regard.
47. The VNPA agrees with the submission from Counsel Assisting that the lack of scientific knowledge is not a reason to delay acting (Submission of Counsel Assisting at paragraph 4.27). The clear consensus amongst members of the expert panel was that, at least with respect to the areas of dry foothill forest where the risk is the highest,

there is sufficient certainty to immediately commence implementation of a program to significantly increase the amount of planned burning. However the fact that the current lack of knowledge is not an impediment to acting now does not mean that there is not an urgent need to address this knowledge deficit through the immediate establishment of an ongoing program of research and monitoring.

48. The evidence of Mr Wilson demonstrates that DSE has failed to meet its statutory obligations in terms of implementing the *Flora and Fauna Guarantee Act 1988*. (T:15147:12 – Wilson, agreeing that the situation is “less than optimal”). It is important that DSE fulfil its current statutory obligations relevant to the fire management including finalising the draft Action Statement for the “Inappropriate Fire Regimes” potentially threatening process without further delay.

Application of targets to different vegetation types

All public land, treatable public land or foothill forests?

49. The proposed recommendations amount to a very significant increase on the current level of planned burning. It is important to be clear about where these increases will occur. Although the two days of discussion from the Expert Panel are not always clear on what the proposed statewide target applies to, a careful examination of the panel’s discussion suggests that the identified 5-10% target can only be justified, with a substantial degree of certainty, for the “foothill forests”.
50. In addition, there is a lack of clarity over the extent and location of the foothill forests.
51. Members of the expert panel commented on the lack of certainty in applying the 5-10% target across all treatable public land, and in clarifying this, most members in response to questions from Counsel for the State seem only willing to apply that target to “foothill forests”, or “dry foothill forests” with any confidence.
52. Mr Tolhurst, for example, says (15246/7-15):
- “My understanding of what we were talking about is, if you like, almost a trial sort of use of prescribed burning and we were talking about particularly of progressing this in the foothill forest areas where there would be less contention in terms of the impact of the fire and we knew it was an area of high priority in terms of protection of life and property. So our discussion there was revolving around the first implementation, if you like, of a trial.”*
53. Dr Bradstock adds (15247/11-20):

“I think what we said was if you went for something around 5 per cent in foothill forests that it was our consensus that at least that would be okay in terms of vegetation responses, though we noted that there is very little information about animals. So that was part of the deal. We reckoned that the vegetation could cope with that; plenty of evidence to suggest that it could. We don’t know much about animals. We need to monitor it if you are going to do it. But that’s not a reason not to do it.”

54. Dr Clarke agrees (15247/27-15248/4):

“Absolutely. I endorse Dr Bradstock’s comment, particularly in relation to fauna and our ignorance of the impact on fauna. But the evidence to date suggests that that doesn’t look like a dangerous level in that habitat. I guess the other thing we were emphasizing in 20(b) was we think this is a habitat that’s important for human life and values and assets, and one in which a trial could take place without major risk to ecological values, but that we would want to monitor that.”

55. Asked to clarify his position, he adds (15248/21-25):

“..I think the panel was of the opinion in this particular habitat type of foothill forest the risk was worth taking, provided there is a commitment to learning as we do it, and that couldn’t be said for other habitats about which we know less.”

56. And Mr Cheney (though asking for 8 per cent rather than Bradstock and Clarke’s 5 per cent), also agrees that the target applies to the foothill forests. (15250/10-16):

“I would also like to say that the panel agreed that this should be a program, not a trial. The word “trial” has come up, which is tending to say we should confine this to a relatively small area. No, the panel said that we should apply this as a program across the dry foothill forests of Victoria as an area basis, not in one specific area.”

57. And Mr Adams adds (15250/31-15251/5):

“But I also think we were quite clear that, as a program, we say that it would take at least 10 years to implement it and that it should be monitored, but it is a program of the five to 10 per cent in the foothill forests, yes, but in the sense of a “trial” we end up on a semantic point.”

58. It is clear that the panel, when clarification was sought by Counsel for the State, was clear that the proposed at least 5 per cent target was intended to apply to the foothill forests, and that there was a degree of uncertainty even there which can only be clarified through long-term monitoring.

59. It is noted also that Dr Clarke submitted a Clarification of expert opinion to the Commission on 28th February. In that statement he makes it very clear that in his opinion (with his underlining):

“The available scientific evidence suggests that annual prescribed burning of 5% may be justifiable in dry eucalypt forest, if the primary goal is appreciable (perhaps 50%) reduction of risk to life and economic assets... on days of severe fire weather. There is also some evidence to suggest that in this particular habitat the ecological consequences of this level of prescribed burning are unlikely to result in irreversible or undesirable change. Since this habitat type is also the one encompassing or abutting the majority of economic assets at most risk from unplanned fire in this state, it would appear to be the habitat type in which the greatest reductions in risk to life and property might be obtained.

“However scientific evidence of the appropriate level of prescribed burning (percentage of the landscape or habitat type) needed to achieve desirable reductions in risk, while avoiding ecological harm, is not available for most other habitat types in the state. Consequently, in my opinion it is inappropriate to apply a target of 5-10% across the public estate of Victoria. Similar risk and ecological analyses to those conducted in foothill forests need to be conducted in other habitats with the goal of setting appropriately tailored targets for these habitats. In the absence of such evidence and analyses upon which to base targets for these other habitat types, there is a need in the interim, for careful and transparent setting of local/regional objectives to justify all prescribed burning activity in those habitats.”

60. Although this statement was submitted after Dr Clarke’s appearance at the Commission and was therefore not the subject of questions or discussions by the Panel, it is consistent with his advice while on the panel and the qualification expressed by him at paragraph 9 of the Panel’s joint statement (TEN.227.001.0003) and it does at least demonstrate that the Commission needs to be wary of recommending a target applicable to all public land or treatable public land rather than foothill forests.

Limitations in the application of the Western Australian program in Victoria

61. The experience in Western Australia should not be assumed to be something that can be applied uniformly throughout Victoria, especially beyond “foothill forests”.
62. Counsel Assisting summarise Mr Sneeuwjagt’s evidence as follows (Paragraph 5.4):

“with the exception of the mountain ash species, the majority of all other eucalypt types of Victoria fall between the jarrah and the karri forest types of south-west of western Australia.”

63. There are, however, significant areas of other eucalypt forest types that as Mr Sneeuwjagt’s statement makes clear, are not analogous to the forests of south-west Western Australia discussed in his statement and he excludes the Wimmera and Mallee regions (WIT.135.001.004 at paragraph 25).

What is included in the description “foothill forest”?

64. Another area about which the Commission has heard very little is the Box-Ironbark forest region of Victoria’s goldfields. It is not clear from the evidence before the Commission whether these forests are included in the description "foothill forests". It is clear that these forests are significantly different from other forest types in terms of the knowledge about appropriate fire regimes. “The Box-Ironbark ecosystems comprise approximately 250,000 hectares of predominately dry sclerophyll forest inland of the Great Dividing Range in Victoria.” (Ex: 794 DSE.HDD.0021.1903)

65. There is very limited understanding of suitable fire regimes for these woodlands:
- “Fire may be considered a blunt instrument, and the effects of fire may be variously insignificant to substantial, short to long-term, and negative to positive. There is no guarantee that the burning of some remnants will not lead to unexpected and undesirable results. As such, the proposed assessment protocols should be looked at in the light of an experimental management program, and fine-tuning (informed by pre- and post-fire monitoring) will be needed in future as our knowledge grows. If in doubt, don't burn. Ecological burning should be avoided in drought years, when plants and animals may already be stressed.”* (Ex: 794, Phase 2 report at p 26).

and

“It would seem to be very important to acknowledge that, due to a lack of information on the effects of different fire regimes in Box Ironbark remnants, we need to do a lot more research before we can confidently set long term targets.” (Ex: 794, Phase 2 report at p 26).

66. This situation stands in contrast to the Panel’s level of confidence with respect to the ecological risks and impacts for burning in other foothill forests.

Conclusion

67. The differentiation between foothill forests and other treatable public land is not dealt with in detail in the Counsel Assisting's submission. In fact the need for such a differentiation is contained in a footnote to the recommendations: "Priority should be given to the treatment of foothill forests in the implementation of planned burns". (footnote 616). The VNPA submits that this is unsatisfactorily vague and that the proposed recommendations need to be more specific in their differentiation between targets for foothill forests and other vegetation types. A suggested variation to the recommendation is put forward below.

Responses to proposed recommendations

Targets

68. Counsel Assisting's proposed recommendations with respect to targets are as follows:
- 19.1 *It is essential that the DSE annual performance of planned burning of the public land estate be measured against a statewide target of hectares burned.*
 - 19.2 *The annual target for planned burning should be between 5% and 10% of the available public land estate with an immediate goal of achieving a minimum annual rate of 385,000 hectares (5%) of planned burning.[616]*
 - 19.3 *The total number of hectares annually treated by planned burning be set out in the annual report of DSE.*
69. The VNPA does not support these recommendations for the reasons outlined above. Proposed alternative recommendations are as follows:
- DSE should immediately move to develop and implement a long term program for the management of bushfire risk on public land with the aim of establishing a clear and transparent science based planned burning program . This program should incorporate long term planning, monitoring and evaluation. Dedicated and secure long term funding should be made available to DSE for this task.*
- 19.1 *It is essential that the DSE annual performance of planned burning of the public land estate be measured against a series of regional targets expressed as a percentage of treatable public land burned.*

19.2 *There should be an immediate interim goal of burning at least 5% of Victoria's foothill forests annually, and this program should be subject to monitoring, and refinement, particularly for impacts on wildlife.*

DSE should convene and co-ordinate an expert panel to establish appropriate interim annual percentage targets for other forest types across the state, taking into account regional needs for fuel reduction and known ecological impacts, and have these targets in place by June 2011. The deliberations and advice of this panel should be available to the public. Any 2010 spring burns and 2011 autumn burns already listed in existing Fire Operations Plans should take place in the interim.

19.3 *The total percentage of public land annually treated by planned burning, and the percentage of foothill forests annually treated by planned burning, should be set out in the annual report of DSE.*

Legislative duty

70. Counsel (at 19.3) assisting submit that:

The requirement in s62B of the Forest Act 1958, that the Secretary of DSE not apply or use fire in a national park or in protected public land unless the person or body that has management and control of that land agrees to its application or use, be replaced with a requirement that the Secretary consult with the land manager in relation to the use of fire.

71. The VNPA does not oppose this recommendation, but notes that the Commission did not hear any evidence that there was an issue with obstruction by Parks Victoria or other public land managers. This is not surprising given that Parks Victoria is effectively a "service provider" to the State accountable to the secretary of DSE (see section 7(1) of the Parks Victoria Act 1958) and is subject to Ministerial Direction (section 10).

Implementation

72. The VNPA recommends the following changes to the recommendations proposed by Counsel Assisting with respect to the Code of Practice and implementation of planned burning.:

19.5 *The Code of Practice should be reviewed in order to provide a clear statement of objectives, expressed as measurable outcomes.*

- 19.6 *The Code of Practice ought to contain an explicit risk analysis model for resolving conflict between competing objectives.*
- 19.7 *The Code of Practice should be revised so that it provides sufficient explicit guidance as to the recommended scale (ie size of treatment block) and intensity of treatment for each Fire Management Zone. The Code of Practice ought to make explicit the facts that:*
- a) *Where the aim is to reduce risk from unplanned fire (principally in the Asset Protection Zone and the Strategic Wildfire Moderation Zone) **the treatment area of** planned burns should be at least 500 or 1000 hectares in size. Near towns it is sought to protect, very large areas for treatment might be required in order to significantly reduce the risk of unplanned fire.*
 - b) *In Fire Management Zones where the aim is to reduce risk from unplanned fire, between 70% and 90% of an area selected for **treatment in** a planned burn should be burned.*
 - c) *In Fire Management Zones where the aim is to reduce risk from unplanned fire, the residual fuel load should be brought down to ‘high’ (within the meaning of the Overall Fuel Hazard Guide). When the aim is to protect towns or construct Asset Protection Zones, it is desirable to ensure highly flammable bark is removed through scorching in order to reduce the risk of spotting.*
- 19.9 *In devising and implementing Fire Management Plans and Fire Operations Plans, more attention should be paid at the District level to designating and selecting Asset Protection Zones and Strategic Wildfire Moderation Zones of sufficient size and treated with sufficient intensity to provide significant risk reduction to towns near forested areas.*
- 19.10 *The operational guidelines for DSE staff should be revised to set out prescriptive guidelines for each Fire management Zone as to the recommended scale and intensity of particular fuel reduction treatments **for each forest type.***

Biodiversity and fire – monitoring and mapping

73. The VNPA recommends the following changes and additions to Counsel Assisting’s proposed recommendations with respect to research, monitoring and evaluation with respect to biodiversity are:

19.11 *That DSE undertake and make available biodiversity mapping identifying ~~flora, fauna~~ ecological vegetation classes and any threatened species or communities across Victoria, in a format compatible with Bushfire Prone Area mapping.*

19.12 *That DSE routinely record and spatially map all significant fires (planned and unplanned) in Victoria, including information on fire severity, and progressively consolidate fire maps into fire histories that are made publicly available on an annual basis.*

19.13 *That DSE implement and maintain a program of long-term data collection, monitoring and modelling of the effects of its planned burning programs and of wildfires on biodiversity in Victoria.*

That DSE should identify and prescribe a preferred temporal and spatial burn mosaic specific to each ecological vegetation class (EVC), designed by fire ecologists with input from botanists, zoologists, entomologists, mycologists and microbiologists.

Burns in the Ecological Management Zone (Zone 3) should be performed according to clear prescriptions designed to achieve identified long-term biodiversity objectives. Prescriptions should be expressed in terms of preferred or required fire frequency, intensity seasonality and patchiness. Burns in this zone must also be integrated at the local planning level with fuel reduction burning in other zones to maximise possible mutual benefits.

Resources

74. The following additional recommendations are proposed with respect to DSE resources:

19.14 *The DSE and Parks Victoria engage greater numbers of permanent full time field staff trained and available to undertake planned burning.*

DSE and Parks Victoria should have a program of recurrent staff training, to ensure fire planners and management staff are kept up to date with current scientific understanding of fuel reduction burn planning, procedures, and the effectiveness of different fire regimes in

different ecosystems to reduce fuel loads and achieve biodiversity outcomes.

DSE and Parks Victoria should ensure that adequate knowledge, skills and resources, and a dedicated recurrent budget, are available for a comprehensive long-term program monitoring the effectiveness of fuel reduction and ecological burns.

There should be a clear, and accountable, ecological management stream within Parks Victoria and DSE, to allow management prescriptions to be applied, supervised and adequately resourced, and ensure programs are supported at all levels of the agencies.

- 19.15 The DSE continue to engage PFFs to supplement the numbers of full time field staff and to enable large numbers of personnel to be available to work in the field on planned burning in Spring and Autumn.
- 19.16 The numbers of staff engaged by DSE whether permanent full time or seasonal PFFs must be sufficient to enable the Department to undertake a planned burning program pursuant to which at least 5% of available public land is burned annually.
- 19.17 The DSE to investigate and implement means of:
- a) Recruiting greater numbers of PFFs in early November or late October, to ensure they are ready to engage in planned burning each Spring and Autumn;
 - b) Retaining greater numbers of PFFs for successive seasons.
- 19.18 The DSE to maintain a database adequate to enable it to identify numbers of permanent field staff and PFFs who, in any given year, are available to engage in planned burning and to enable it to report on how many staff do engage in planned burning in each year – and for how many days, at what cost to the Department and in which Districts or Regions the work is undertaken.
- 19.19 The DSE ought make publically available sufficient information to enable sensible cost-benefit analyses to be undertaken when determining which planned burning options will be implemented to reduce the risk of unplanned fire.

Intersection with the Commonwealth regime (the Environment Protection and Biodiversity Conservation Act 1999 and planned burning)

75. The possible application of the EPBC Act 1999 to planned burning, fire suppression and roadside vegetation management is discussed in Counsel Assisting's Planned Burning submission as well as the submission on Roadside Management. The proposed recommendations in the Planned Burning submission are as follows:

19.20 The State should seek a strategic assessment from the DEHWA under the EPBC Act with respect to all appropriate aspects of bushfire risk reduction measures undertaken in Victoria including planned burns.

76. Although the VNPA disagrees that the EPBC Act 1999 has been demonstrated to be a significant impediment to planned burning or bushfire management, it does agree that an increase in the planned burning program of the scale proposed could have biodiversity impacts on matters of national environmental significance under the EPBC Act 1999. The VNPA supports the recommendation with respect to strategic assessment and notes that the requirements of the Commonwealth with respect to endorsement of a plan, policy or program are largely consistent with the development and implementation of a program that includes a greatly increased emphasis on the monitoring and evaluation of biodiversity impacts.

Other matters not covered in Counsel Assisting's proposed recommendations:

77. The VNPA submits that the Commission should make the following additional recommendations:

A. Adaptive management and accountability

- i. There should be a formal re-assessment by DSE of prescriptions and targets for planned burning, including fuel reduction burns and ecological burns, every four years.
- ii. There should be an independent audit by an accredited auditor, of the effectiveness of DSE's planned burning program, every four years. The audit should take place in the year before DSE's re-assessment of prescriptions and targets.

B. Community education and involvement

- iii. DSE should conduct a comprehensive, ongoing community education program, aimed at communicating science-based

information on fuel reduction and ecological impacts of fire regimes across the state, and the programs in place to improve scientific knowledge.

- iv. DSE should develop a scheme of regionally based, broadly representative community panels, with ready access to good ecological and fuel management advice, to assist in long-term planning at a local level for management burns and other fire management issues.

Brendan Sydes

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