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Chair
Dudley Peninsula Fire Management Planning Team
Department for Environment and Water
GPO Box 1047
ADELAIDE SA 5001

Monday 3 June 2019

Re: Dudley Peninsula Draft Fire Management Plan

Dear Chair,

The Nature Conservation Society of South Australia (NCSSA) appreciates the opportunity to comment on the Dudley Peninsula Draft Fire Management Plan (the Plan). Since 1962, the NCSSA has been a strong advocate for the protection of native vegetation and biodiversity in South Australia with particular attention being paid to nationally and state listed threatened plants, animals and ecological communities and the management of protected areas. NCSSA has had a long-standing interest in the conservation of nature on Kangaroo Island, as demonstrated by having undertaken or supported a number of biological surveys (see References for examples).

In principle, we support the concept of planning for fire management at a large scale, in this case across multiple Conservation Parks, Heritage Agreements and other parcels of Crown Land, as we concur with the Plan that fire is a landscape issue. In order to protect and conserve the biodiversity that persists in the fragmented native vegetation that remains to us on the Dudley Peninsula, we strongly support action that will reduce the likelihood of whole reserves or multiple reserves burning in a single fire event. We also support the inclusion in this Plan of a considerable amount of information on the environmental values that need specific consideration in our fire planning, including the needs of species and ecological communities of conservation concern.

We support that much of the plan area will be managed as “C-zone”, i.e. fire management for ecological and conservation management objectives. We are, however, concerned that the Plan does not adequately justify the “A” and “B” fire management zones it prescribes. We understand that the Department for the Environment and Water (DEW) utilises a zoning approach that is different from that currently used on private property, yet this Plan covers both tenures. Specifically, we are concerned by the prescription of a low-fuel Asset Protection Zone of 40m in radius to help protect life and property, as it is inconsistent with the current standard of 20m recommended by the Country Fire Service (CFS). We are also concerned that the prescriptions in the Plan go beyond what might be required to protect electricity infrastructure assets as prescribed by the *Electricity (Principles of Vegetation Clearance) Regulations 2010* established under the *Electricity Act 1996*.

We are therefore concerned that this Plan seeks fuel reduction beyond what is generally permissible (or more importantly, necessary), which could result in unnecessary environmental harm. We understand that a new zoning standard for the State is in preparation through existing bushfire management processes, including the option for identifying ‘strategic management zones’ where fuel reduction activities are matched with fire risk rather than requiring a standard sized area to be managed, and that it would benefit all stakeholders for this Plan to reflect the new standard, when it is finalised.

We also wish to emphasise that key to the success of this Plan is resourcing it adequately. We acknowledge the fact that implementation of the Plan will depend upon fire management priorities and the allocation of regional resources but suggest it might be useful to provide some form of ranking for the strategies and actions identified in the plan given the broad range and number. Specifically, NCCSA strongly supports long-term monitoring, both pre- and post- fire, to improve our understanding of the responses of various species and ecological communities in order to inform future management. Commendably, the Plan outlines a number of management strategies related to monitoring as well as the development of specific strategies for threatened species and ecological communities. It is critical that adequate resources are dedicated to this important task.

Please find further, more specific, comments and suggestions in the following pages. If you would like to clarify or discuss any of these points, please contact me on (08) 7127 4633 or via email at julia.peacock@ncssa.asn.au.

Yours sincerely,

A handwritten signature in blue ink that reads "Julia Peacock". The signature is written in a cursive style and is set against a light yellow rectangular background.

Julia Peacock
Nature Advocate

NCSSA comments on the Dudley Peninsula Draft Fire Management Plan

Overall comments

NCSSA supports the concept of planning for fire management at a larger scale, in this case across multiple Conservation Parks, Heritage Agreements and other parcels of Crown Land, as we concur with the Plan that fire is a landscape issue. In order to protect and conserve the biodiversity that persists in the fragmented native vegetation that remains to us on the Dudley Peninsula, we strongly support action that will reduce the likelihood of whole reserves or multiple reserves burning in a single fire event.

However, we are concerned that the management zones identified in this document reflect DEW standards which are inconsistent with that currently used on private property, yet this Plan covers both tenures. Specifically, we are concerned by the prescription of a low-fuel Asset Protection Zone of 40m in radius to help protect life and property, as it is inconsistent with the current standard of 20m recommended by the Country Fire Service (CFS). We understand that additional clearance beyond 20m requires approval from the Native Vegetation Council.

We are therefore concerned that this Plan seeks fuel reduction beyond what is generally permissible (or more importantly, necessary), which could result in unnecessary environmental harm. This is particularly concerning where the Plan applies to private landholders with Heritage Agreements and where it prescribes Asset Protection and Buffer Zones in parts of Conservation Parks that are home to endangered species, such as the Gloss Black-cockatoo. We understand that a new zoning standard for the State is in preparation through existing bushfire management processes, and that it would benefit all stakeholders for this Plan to reflect the new standard, when it is finalised.

NCSSA also strongly recommends that copies of the maps referred to in the document are included in the final plan for ease of access and reference. Whilst we understand that a link to the online Fire Management Maps is provided on page (vii), the 'livelinks' to the mapping portal throughout document did not work and, once accessed, we found the online mapping portal was not intuitive to navigate. Therefore we suggest:

- Improving the map on page 8 by labelling each Conservation Park,
- Including a map of each Conservation Park, showing assets and marking the proposed management zones, and
- Include a map of each planning Block, to give landscape context.

This would make the document more user-friendly and 'stand-alone', even if a caveat is needed that the zones were subject to finalisation and could be subject to modification.

Executive Summary

(Page iii)

Our comments are as follows:

- It would be useful to clarify what is meant by the 'transitional stage' referred to in the second paragraph – presumably it refers to a transition between the current arrangements and those proposed under the plan?
- NCSSA strongly supports action that will reduce the likelihood of whole reserves or multiple reserves burning in a single fire event, as this provides for the protection of nationally and state threatened species, along with regionally rare fauna and flora species and ecological communities.
- We suggest using the term "threatened" rather than "rated" for species of conservation significance, to highlight that the reason they are of concern is that they are threatened with extinction. At present these terms are used interchangeably in the Plan which makes it unclear to the reader, so we also suggest consistent terminology would be useful.

- NCSSA strongly supports actions that will increase our knowledge of required fire regimes for biodiversity, as lack of understanding currently hampers our efforts.
- We support advocacy for pro-active management at both the landscape and individual species level, acknowledging there may be tensions within and between these approaches, for example differences between the requirements for individual species.

(Page iv)

- We support the use of DEW Ecological Fire Management Guidelines to determine appropriate fire regimes in Conservation-Land Management Zones.

1. Scope and Purpose

(Page 1)

As mentioned earlier, it would be useful for the Plan to include a map of significant infrastructure, such as the main transmission line from Adelaide.

(Page 2)

We note that the Plan will be implemented “in a staged manner depending on available resources”. We acknowledge the fact that implementation of the Plan will depend upon fire management priorities and the allocation of regional resources but suggest it might be useful to provide some form of ranking for the strategies and actions identified in the plan given the broad range and number. NCSSA advocates specifically for including resourcing for monitoring, since this is key to improving our understanding of the impact of fire regimes on the natural environment.

1.1 Objectives

(Page 3)

Overall, NCSSA supports the objectives of the Plan, and particularly strongly supports research programs to inform prescribed burning, as well as minimising the likelihood of landscape scale fires and reducing the likelihood of fire suppression operations impacting on the viability of species and ecosystems. We recommend that non-government organisations are included in the first dot (on page 3) in addition to universities and research organisations that can assist with developing research programs to inform prescribed burning on public land.

2.1 Legislation

Table 1 should also reference the *Electricity (Principles of Vegetation Clearance) Regulations 2010* established under the *Electricity Act 1996*. These Regulations contain prescriptions for maintaining clearance and buffer zones around electricity infrastructure.

2.3 Other influences and considerations

(Page 5)

The fire management aspects of the various plans covering most of the reserves with the Plan area are inconsistent with each other and, for Simpson Conservation Park, outdated. This Plan should provide a brief critique of the fire management aspects of each relevant reserve plan, state whether they are still supported by DEW, and if necessary, explain any apparent inconsistencies. For example, why would Pelican Lagoon and Lesueur Conservation Parks be managed with mosaic and low intensity burns (respectively), where Dudley and Simpson Conservation Parks only be managed for fuel hazard reduction or breaks (respectively) around their boundaries? It would also be useful to include information about fire management activities that have been undertaken in these reserves over the past 10 years to provide context for the current plan (cross-referencing section 3.4.4 Prescribed Burning History, as appropriate).

2.6 Plan Review and Currency

(Page 7)

We strongly support reviewing the plan after 10 years, or earlier if required, and support the causes for earlier review as listed in the Plan.

3.1.1 Location

As mentioned earlier, we suggest that Figure 1 could be improved by labelling the relevant Conservation Parks.

3.1.2 Included Lands

We support that DEW is attempting to include all 25 Heritage Agreement owners in this planning process, since fire is best managed at a landscape scale. However, as Heritage Agreements are not managed by DEW directly, prescribing management zones that are different from currently accepted practice (e.g. 40m of treatment around a house rather than 20m as a general standard) becomes problematic, confusing for landholders and potentially could result in unnecessary clearance and therefore environmental harm.

3.1.3 Fire Management Blocks

As mentioned earlier, we strongly suggest it would be helpful to include a detailed map of each management block, identifying zones where possible.

3.1.4 Surrounding Land Use

As mentioned earlier, "Map 1" appears to be a livelink, but it does not work for us. As a minor editorial suggestion, we suggest amending 'economical' to 'economic'.

3.1.5 Terrain

We suggest this section acknowledge the importance of remaining fragments of native vegetation particularly in the northern part of the Peninsula where there has been widespread clearing for agriculture and/or grazing of remnant native vegetation by domestic stock. In terms of the landscape context, many of the reserves covered by this Plan are the only significant remnants of intact native vegetation in this area.

3.2 Climate Change and Bushfire

We strongly support the acknowledgement that our climate is changing and that, whilst precise predictions of its effects at a local scale are hard to make, overall it is resulting in worsening conditions for bushfire.

3.3 Extreme Fire Conditions

A minor editorial suggestion is to delete "the effectiveness" in the second sentence in the first paragraph of this section.

3.4 Fire History

We strongly suggest that this section should commence with the pre-European fire history of the area. Particularly, it should include an assessment of whether or not Aboriginal people used fire as a land management tool, as they did in other parts of Australia, over the time they inhabited the island (cross-referencing section 4.3. Fire Management for Cultural Heritage, as appropriate). If there is limited evidence to establish this or to assess the pre-European fire regime at all, then this should be stated. This context is important since it would provide some insight into what historic fire regime that the flora and fauna of the island may be adapted to. It should also acknowledge that given the high levels of fragmentation of remnant vegetation left today, a return to an idealised "historic fire regime" may not necessarily be practical or desirable.

Following the above insertion, the paragraph at 3.4 could commence with "In contemporary times...", or similar, noting that "large bushfires" is a relative term (i.e. under pre-European conditions, fires may have been the same

size or bigger, but the impacts for nature were not as severe since the vegetation was continuous). It would also be useful to insert a range of dates for the Soldier Settler Scheme.

3.4.3 Prescribed Burning

(page 15)

The Plan states that “the CFS is the lead agency in bushfire management and suppression”, but on the following page, “DEW commenced a statewide prescribed burning program in 2004”. In light of this, it would be useful to clarify the role of DEW as the lead agency responsible for prescribed burning.

3.4.4 Prescribed Burning History

It would be worth noting that DEW has approval to conduct their prescribed burning program under the EPBC Act due to the potential impact on flora and fauna species and ecological communities with national conservation significance.

3.7 Values and Assets

In terms of the issues identified by the community it would be useful to clarify what burn-offs refers to i.e. are they referring to agricultural practices or on private land?

3.7.2 Flora, Fauna and Ecological Communities

(Page 20)

We strongly support specific attention being given to species and ecological communities of conservation significance. We suggest that this section also consider the outputs Regional Species Conservation Assessment Project¹ for Kangaroo Island, as an Island-specific assessment may provide a differing interpretation of the level of threat to these species and ecological communities.

With respect to the Nature of SA, we suggest adding that nine “shifts” in thinking have been identified that are needed to shape effective nature conservation action in the future. Arguably, this plan is consistent with a number of these shifts, in particular:

- “holding onto what’s working” since we think fire is best managed at a cross-tenure, landscape-scale and ecologically-sensitive way,
- “from a purely historical focus to future-oriented outcomes”, as whilst the Plan reviews the historical fire regime, it also considers the current state of the planning area and identifies what outcomes we want in future from our fire management actions,
- “decision making requires consideration of values, rules and knowledge”, since the Plan endeavours to incorporate the values of the range of stakeholders involved in or affected by the Plan, as well as gather and elicit expert and local knowledge. The Plan also seeks to meet the “rules” of relevant fire and land management legislation, and
- “we have to learn to change”, which acknowledges that all our nature conservation actions are an experiment – in this case, much remains to be learnt about fire management and monitoring will tell us more about the impact of our actions (or inaction), which will inform future choices.

Further information about the Nature of SA is available from <http://www.natureofsa.org/>.

We also ask that “of SA” be added to our name, e.g. the Nature Conservation Society of SA.

¹ https://www.environment.sa.gov.au/topics/plants-and-animals/Threatened_species_ecological_communities/Regional_significant_projects/Regional_Species_Conservation_Assessment_Project

(Page 21)

We suggest it would be useful to state briefly how these species and ecological communities have been identified as being at particular risk of negative impacts due to bushfire, prescribed fire or other fire management activities.

Bassian Thrush

We strongly support habitat mapping for this species, as well as specifically monitoring the effects of fire on it.

(Page 23)

Glossy Black-cockatoo

We suggest amending the first sentence of the second paragraph to change “home-range” (which is the area used by an individual of a species) to “distribution” (the area within which a species is known to occur). Suggested rewording is: “~~Current~~ Critical feeding sites, which ~~contribute to~~ support the ~~current~~ distribution of the GBC, are found in Baudin CP. Revegetation work has significantly increased the area of Drooping Sheoak (*Allocasuarina verticillata*) habitat available within the CP, which is essential since the species only forages in these areas”, or similar.

A minor editorial correction is changing “breeding” to “breeding”.

Given the importance of the Baudin CP for the conservation of this endangered species, but also the planned management prescriptions of maintaining significant Asset Protection and Buffer Zones within the same CP outlined on pages 82 and 83, it would be beneficial for the Plan to describe in more detail why fuel reduction is needed and how it will be achieved without negatively impacting on the conservation of this species. A B-zone of 160m width along Binnies Track is very large and warrants specific justification. Similarly, the maintenance of ‘Crownland parcel within Penneshaw township’ as a B-zone should be justified, as we understand that this is a GBC feeding ground and that fuel reduction in this area is not required to reduce fire risk due to the slope of the block and the presence of cleared land nearby.

Kangaroo Island Narrow-leaved Mallee Woodland

We strongly support the development of an Ecological Fire Management Strategy for this threatened ecological community.

Kangaroo Island Southern Emu-wren

The Management Strategies for this species seem less logical and well-ordered than the previous ones. Updating our knowledge of the species’ distribution and critical habitat would seem a necessary first step before undertaking “strategically located prescribed burns in order to create low fuel buffers that aim to mitigate against major population losses... (Action 30)”, unless the data currently held are of sufficient quality to guide this management strategy.

It is unclear what it means to “determine if a C-zone burning program is required for this sub-species” – is this about determining an overall preferred fire regime across areas of known or potential habitat?

It also seems illogical to “conduct prescribed burns as required (Action 32)” prior to “developing an Ecological Fire Management Strategy... (Action 33)”.

We strongly support Actions 34 and 35, as using prescribed burning as an opportunity to gather new information about fire response, as well as monitoring populations post-fire, will support better management into the future.

(Page 31)

Kangaroo Island Western Whipbird

We suggest rewording Action 42 to highlight that it's the overall fire regime that is required to maintain and improve suitable habitat for the species, so the necessity of conducting prescribed burns will depend on any (unplanned) bushfire activity. As for the Emu-wren, it is unclear what is meant by "determine if a C-zone burning program is required for this sub-species", so we suggest this be clarified.

We strongly support Action 48, as using prescribed burning as an opportunity to gather new information about fire response will support better management into the future.

Southern Brown Bandicoot

It is encouraging to see that there is reasonable level of knowledge with regard to the fire response of this species. Nevertheless we support monitoring of the effects of fire (Action 55) to better inform future management.

(Page 34)

Enigma Moth

We support the inclusion of information related to this endemic moth, and the management strategies as outlined.

(Page 35)

Small mammals

We support pre- and post- fire monitoring for small mammals to inform management.

3.8 Abundant and Pest Species

We strongly support the requirement for an assessment of the potential impacts of pest animals and overabundant native herbivores prior to any prescribed burn being conducted to determine whether pre and/ or post-fire management is required. As noted in the Plan, abundant species can impact dramatically on the post-fire recruitment of flora species, but it would also be useful to acknowledge their impacts on long-term recovery of vegetation communities post-fire.

We commend the work that KI NRM has committed to through the *Kangaroo Island feral cat eradication initiative* and support the need for the DEW fire management program on Dudley Peninsula to work in collaboration with the program to mitigate the impacts of feral cats on native species pre and post-prescribed burns.

We agree that "prescribed burning provides opportunities for research and monitoring into how abundant fauna and flora respond to and impact on the environment post-fire" however, to be effective, there needs to be a commitment to ongoing monitoring and resourcing of such programs and the Plan should acknowledge this.

Although we support the application of an integrated approach to weed management that involves the planned use of fire coupled with other weed control techniques, caution is required to minimise adverse impacts on remnant native vegetation – particularly where threatened species or ecological communities are known to occur.

We suggest that a further statement recognising that prescribed burning practices can provide opportunities for research and monitoring to be undertaken to inform and improve the management of flora post fire would be appropriate. Such monitoring is a critical part of improving our understanding of the role of fire in managing weed infestations in native vegetation. As with pest and abundant animal monitoring, there should be some acknowledgement of the need for a commitment to ongoing monitoring and resourcing of such programs in the Plan.

A minor editorial correction to the weed common name – Arum Lily not Arium Lilly.

4. Risk assessment

(Page 40)

We support a risk assessment approach to fire management, however, as mentioned earlier, there needs to be a clearer link between the individual risk assessments that have been undertaken and the recommended management zones that the Plan prescribes.

4.2.1 Ecological Fire Management Guidelines

Table 4 – Ecological Fire Management Guidelines for MVS in the Planning Area

NCSSA strongly recommends that the guidelines ecological fire management and prescribed burning be informed by the best available knowledge/science. It is not clear how these figures have been derived or what information they are based on, but we would recommend that they are regularly reviewed as new knowledge becomes available and strongly recommend this is clearly stated in the Plan.

4.3 Fire Management for Cultural Heritage

(page 45)

As mentioned earlier, this document would be strengthened by the inclusion of any information about fire regimes during Aboriginal occupancy of the Island and also in the period between Aboriginal and European occupancy. If there is little or no evidence to describe these historic regimes, then the Plan should state that.

5.1 Fire Management Zones

(Page 48)

As mentioned earlier, we understand that there is a new zoning standard in development through State bushfire management processes, and also the DEW zoning is different from zones currently used by other land managers. Specifically, we understand that the prescription of a low-fuel Asset Protection Zone of 40m in radius to help protect life and property is inconsistent with the current standard of 20m, as recommended by the Country Fire Service (CFS). We understand that additional clearance beyond 20m requires approval from the Native Vegetation Council. We are therefore concerned that the Plan requires fuel reduction beyond what is generally permissible (or more importantly, necessary), which could result in unnecessary environmental harm.

5.1.1 Major Strategies within the Planning Area

(Page 51 – Figure 4)

Whilst this diagram provides a useful overview of the planning process, it would be useful to know why “C-zone burns breaching guidelines” are needed (i.e. under what circumstances are the guidelines not adhered to?) and also why the Senior Fire Ecologist’s approval required only for a prescribed burn and not for “other fire management actions”, since “other actions” will ultimately impact on the overall fire regime.

8.4 Monitoring

As previously stated, NCSSA strongly supports long-term ecological monitoring to assess the impact of fire regimes on our native biodiversity and calls for this important work to be adequately resourced.

Appendix 1 – Assets and Strategies for Risk Mitigation

As mentioned earlier, the Plan should provide clearer justification for the zones it recommends. For example, why is it necessary to maintain a 40m radius of low fuel around the Cape Willoughby lighthouse? Will it actually mean any proactive fuel management will take place? If so, what? It should also as outline how its requirements relate to the *Electricity (Principles of Vegetation Clearance) Regulations 2010* established under the *Electricity Act 1996*. For example, is maintaining an A-zone for 40m on both sides of the powerline going through Crown Land in the Lashmar Block consistent with the relevant regulations?

Similarly, the prescriptions for the Penneshaw Block should be justified and related to the requirements of the Glossy Black-cockatoo, where relevant. As stated earlier, a B-zone of 160m width along Binnies Track is very large and warrants specific justification. Similarly, the maintenance of 'Crownland parcel within Penneshaw township' as a B-zone should be justified, as we understand that this is a GBC feeding ground and that fuel reduction in this area is not required to reduce fire risk due to the slope of the block and the presence of cleared land nearby. The maintenance of an A-zone of 80 metres around the SWER Line should also be justified and related to the *Electricity (Principles of Vegetation Clearance) Regulations 2010* established under the *Electricity Act 1996*.

Appendix 2 - Fire Response of Rated, Significant and Introduced Flora Species

In terms of clarity, the NCSSA would strongly recommend that Fire Response of Rated and Significant Flora Species should be included in a separate Appendix from Introduced Species. We also strongly recommend that further information for all rated species should be included in the column titled 'Fire Management Considerations'. This information may be available from existing Recovery Plans, Conservation Advices or through reference to other similar species until more specific information is gained.

Appendix 3 - Fire Response of Rated, Significant and Introduced Fauna Species

This table does not contain any introduced fauna species so the title is incorrect. If it is intended to include introduced species e.g. feral cats then, in terms of clarity, the NCSSA would strongly recommend that Fire Response of Rated and Significant Fauna Species should be included in a separate Appendix from Introduced Species. The NCSSA also recommends further details in relation to breeding, species ecology and fire response of rated bird species could be supplemented with information from relevant Recovery Plans and Conservation Advices for nationally listed species and/or the Handbook of Australian & New Zealand Birds.

References (examples of surveys undertaken by NCSSA and its members on Kangaroo Island)

- Barritt, M.K. (1981). The vertebrate fauna of the Gosse Crown Land on Kangaroo Island. Part I. Nature Conservation Society of South Australia. Adelaide.
- Barritt, M.K. (1982a). The vertebrate fauna of the Gosse Crown Land on Kangaroo Island, Part 2. Nature Conservation Society of South Australia. Adelaide. (Unpublished report)
- Barritt, M.K. (1982b). A rapid appraisal survey of some natural areas on Kangaroo Island, South Australia. Nature Conservation Society of South Australia. Adelaide.
- Barritt, M.K. (1984). Notes on the lagoons of Kangaroo Island. Nature Conservation Society of South Australia. Adelaide.
- Mowling, F.A. and Barritt, M.K. (1981). The natural vegetation of Kangaroo Island. Nature Conservation Society of South Australia. Adelaide
- Harris, C.R. (1974). The National Parks and Reserves of South Australia. Ph.D. thesis, University of Adelaide. (Unpublished).
- Harris, C.R. (1977). Towards a historical perspective. In National Parks in South Australia: a symposium. Proceedings of the Royal Geographical Society of Australasia South Australia Branch. 78: 55-71.
- Harris, C.R. (1981). Flinders Chase National Park. A brief history. South Australian Parks and Conservation. 4 (1): 4-7.
- Lothian, J.A. (1984). A cost benefit study of National Parks on Kangaroo Island, South Australia. In Proceedings of Conservation and the Economy Conference, Sydney, October, 1984.