Nature Conservation Society of South Australia

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The Director
Terrestrial Species Conservation Section
Wildlife, Heritage and Marine Division
Department of the Environment
P.O. Box 787
Canberra ACT 2601

February 26, 2014

Re: *EPBC Act nomination to list as a key threatening process 'Biodiversity decline and habitat degradation in the arid and semi-arid Australian rangelands due to the proliferation, placement and management of artificial watering points'*

Dear Sir/Madam,
The Nature Conservation Society of South Australia (NCSSA) welcomes the opportunity to provide comments on the EPBC Act nomination to list the above key threatening process and associated threat abatement plan decision. As South Australia's primary nature conservation advocacy organisation, the NCSSA has an active interest in the protection and conservation of South Australia's natural resources with particular attention being paid to nationally and state listed threatened plants, animals and ecological communities.

Since 1962, NCSSA has played a key role in establishing and expanding the reserve system in South Australia by promoting the protection of key biodiversity assets through the dedication of reserves and by undertaking ecological research to inform their management. Our current and past activities also address the significant need for ongoing management and monitoring both within parks and across the broader landscape to provide long-term conservation of biodiversity.

Please refer to the following pages for our comments on the EPBC Act nomination and issues surrounding development and implementation of a threat abatement plan. If you would like to clarify or discuss any of the points raised please contact me on (08) 7127 4633 or via email at nicki.depreu@ncssa.asn.au

Yours sincerely,

Nicki de Preu

Conservation Ecologist

NCSSA's responses to structured questions on the EPBC Act nomination to list as a key threatening process 'Biodiversity decline and habitat degradation in the arid and semi-arid Australian rangelands due to the proliferation, placement and management of artificial watering points' and associated threat abatement plan decision are as follows:

1. *What are your views on whether the threatening process is eligible for inclusion in the list of key threatening processes, and what are the reasons supporting those views?*

The NCSSA strongly supports the nomination to list the above mentioned threatening process as a key threatening process under the EPBC Act. The rangelands of South Australia cover approximately 80% of the State's land area occupying approximately 741,000 km^2. Within this area the Pastoral Board is mandated to administer and monitor 322 pastoral leases that collectively occupy 410,000 km^2. The balance of the rangelands is set aside as Aboriginal lands and parks and reserves. They contain the largest areas of intact native vegetation and provide habitat for a large number of fauna and flora species listed under the EPBC Act in addition to state and regionally rare species. As noted in the nomination to list, there has been considerable research and other investigations into the impact of artificial watering points on biodiversity and habitat condition in the rangelands across Australia and overseas. These studies have clearly demonstrated the negative impact associated with artificial watering points in terms of increased and concentrated grazing and trampling pressure from not only domestic livestock, that they were installed to provide for, but also feral animals that are attracted to the watering points. In some areas there has also been a proliferation of pest plant species associated with the placement of artificial watering points. There are, however, significant areas within the South Australian rangelands that are located some distance from artificial watering points and provide significant refuges for biodiversity conservation. It is the NCSSA's view that further protection of these areas is critical for long term biodiversity conservation. Listing of this threatening process will mitigate the impacts of further proliferation of artificial watering points and enable more strategic assessment of their placement and management.

2. *Is the information used to identify this process as a key threatening process accurate?*

The NCSSA considers most of the information presented in the nomination to list to be accurate, however, there are a number of key areas where further information could be added to provide broader context and a more thorough overview of the effects of the process. We recommend the following areas are addressed in the final nomination:

- The section on 'History of proliferation, placement and management of artificial watering points' (Pages 6-7) acknowledges that discharge areas of the GAB have declined dramatically as a result of aquifer pressure decline from artificial extraction (Harris 1981; Ponder 1986).
- The section on Goat Grazing (Page 9) should emphasise the relationship between the Dog Fence and numbers of unmanaged goats in the rangelands.
- The section on Rabbit Grazing (Page 10) needs to acknowledge the dramatic impact the spread of Rabbit Haemorrhagic Disease (RHD) in 1995-1996 had on rabbit populations across the rangelands (e.g. Bowen and Read 1998; Mutze et al. 1998; Henzell et al. 2002). The disease had greatest impact in arid inland areas where rabbit populations were initially reduced by >90% and held low for almost 10 years (Mutze et al. 1998). There is also substantial evidence that rabbit numbers have increased over the past decade in many areas (Mutze et al, in press).
- The section on Kangaroo Grazing (Page 10) should refer to the annual aerial surveys of large macropods that are conducted across the rangelands in South Australia since 1978 covering a survey area of approximately 207,000km^2 (Further information available on DEWNR website) http://www.environment.sa.gov.au/managing-natural-resources/plants-and-animals/Abundant_species/Kangaroo_conservation_management/Quotas_harvest_data
- The section on Dingoes (Pages 11-12) should recognise the impact that the construction of the Dog Fence had on the Dingo population across the rangelands and the impact this had on biodiversity (Newsome et al. 2001). In South Australia, the pastoral zone is divided into two distinct zones by the 2,250 km Dog Fence. Cattle leases outside the fence collectively occupy 230,000 km^2 while sheep leases inside the fence occupy 180,000 km^2.

3. *Can you provide any additional data or information relevant to the claim that this process is having an adverse effect on species/ecological communities?*

There have been a number of studies in South Australia that can provide additional data or information pertaining to the impact of artificial watering points on key biodiversity assets that should be further considered in the nomination to list this threatening process e.g. Smyth et al., 2009, Fleming & Brook, 2008 and Day, 2007.

An additional area of relevance to this listing in South Australia is the delegation of certain powers and functions of the Native Vegetation Council to the Pastoral Board in relation to clearance of native vegetation by grazing of domestic stock, specifically:

- Section 25 of the Native Vegetation Act 1991 in relation to the development of guidelines for the management of native vegetation with respect to clearance of native vegetation by grazing on lands held under a pastoral lease, and
- Division 1 of Part 5 of the Native Vegetation Act 1991 in relation to application to clear native vegetation by grazing on land held under a pastoral lease.

The Pastoral Board currently applies the delegated powers in relation to the extension of stock water supplies into areas of pastoral country not previously provided with a permanent water supply and any proposals to change the species of grazing animal. In carrying out this responsibility the Board actively consults with the Native Vegetation Council and the SA Arid Lands NRM Board. The 2012/13 Annual Pastoral Board Report states that one Section 43 notice was in place on one property for the potential land degradation issues that can result from many waterpoints installed less than 5 kilometres apart and without any planning considerations and approvals being obtained for developing lease areas that were previously not considered watered. This issue demonstrates the current ineffectiveness of State legislation to provide for protection of native vegetation clearance by grazing on lands held under a pastoral lease and importance of listing this process under the EPBC Act.

4. Can you suggest any other EPBC listed species or ecological communities that may be adversely affected by this process? And can you provide the relevant data to support this suggestion?

The NCSSA considers that there are numerous other EPBC listed species and ecological communities that are highly likely to be adversely affected by this process including the following:

- Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia currently listed as Critically Endangered;
- The Iron-grass Natural Temperate Grassland of South Australia ecological community currently listed as Critically Endangered;
- The community of native species dependent on natural discharge of groundwater from the Great Artesian Basin currently listed as Endangered;
- Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia currently listed as Endangered;
- Salt Pipewort *Eriocaulon carsonii* currently listed as Endangered; Fatchen and Fatchen (1993) speculate that the distribution of the salt pipewort in South Australia was more widespread prior to the introduction of domestic stock. These authors also document numerous cases of local extinctions and re-appearances within nine years of monitoring individual spring vents in the Hermit Hills area of northern South Australia.

5. *Can you suggest any other species or ecological communities that may become eligible for listing under the EPBC Act as a result of this process? And can you provide the relevant data to support this suggestion?*

There are numerous other species and ecological communities currently listed under the National Parks & Wildlife Act that may be impacted by this threatening process and become eligible for listing under the EPBC Act as a result. Biodiversity Strategies and Plans for the South Australian Arid Lands, Northern and Yorke, and Eyre Peninsula NRM regions provide further details of selected species however the list of all species that could be affected is too lengthy to include in this submission and would include mammals, birds, reptiles, amphibians, fish, invertebrates and a range of plant taxa.

One example for the South Australian Arid Lands NRM Region is the Pernatty Knob-tailed Gecko (*Nephrurus deleani*) that occurs entirely on pastoral leases, and potential threats to the species include vegetation disturbance and soil compaction by cattle, as well as vegetation change (Ehmann, 2005).

6. *Can you suggest any other EPBC listed species or ecological communities that may become eligible for listing at a higher level of endangerment as a result of this process? And can you provide the relevant data to support this suggestion?*

   The NCSSA believes that there are numerous other EPBC listed species and ecological communities that may become eligible for listing at a higher level as a result of this process including those listed under Question 4 and others with current lower ratings. The NCSSA has relevant data pertaining to the condition of Peppermint Box Grassy Woodlands, Iron-grass Natural Temperate Grassland and Grey Box Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia that could be provided to support this if required.

7. *Can you provide additional data or information relevant to this assessment?*

   The NCSSA could provide additional data or information relating to EPBC listed species and ecological communities relevant to this assessment if required.

8. *Have you been involved in developing this nomination?*

   The NCSSA has not been involved in developing this nomination.

9. *Please provide advice on the feasibility, effectiveness or efficiency of having and implementing a threat abatement plan to abate the process.*

   The NCSSA acknowledges both the broad reaching and complex nature of this threatening process and interrelationship with other processes currently listed under the EPBC Act as outlined on Page 18 of the nomination to list. Although this will result in challenges in terms of implementing a threat abatement plan to mitigate threats from this process we do not consider those to be insurmountable and strongly recommend that such a plan be adopted in the near future.

10. *Please provide any advice on actions that could be included in a Threat Abatement Plan that might reduce the impact of artificial watering points on biodiversity decline and grazing pressure.*

    The NCSSA strongly recommends that the Threat Abatement Plan to reduce the impact of artificial watering points on biodiversity decline and grazing pressure should refer to and include relevant actions and targets from existing Recovery Plans for EPBC listed species and ecological communities and Regional Natural Resource Management Plans.

    The NCCSA considers the following actions a priority for inclusion in the Threat Abatement Plan:

    - There should be an ongoing commitment to, adequate resourcing and implementation of the Great Artesian Basin Sustainability Initiative program (GABSI) to ensure protection of the community of native species dependent on natural discharge of groundwater from the Great Artesian Basin;
    - In order to achieve biodiversity conservation benefits from managing this threatening process there needs to be an ongoing commitment to and adequate resourcing of co-ordinated feral animal control programs for unmanaged goats, feral pigs and feral camels across the rangelands;
    - Fencing of springs and waterholes and provision of alternative water sources should be considered a high priority for managing this threatening process;
    - Stocking rates for pastoral properties need to accurately consider an ongoing assessment of feral herbivore densities to ensure that sustainable stocking rates are not exceeded.
    - An ongoing commitment to monitoring the status and condition of EPBC listed species and ecological communities that are impacted by this threatening process with timely and publically available reports;
    - Identification and further protection of areas located distant from artificial watering points to provide for long-term biodiversity conservation of land currently utilised for pastoral production.

References

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