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GREATER GARIWERD LANDSCAPE DRAFT MANAGEMENT PLAN

PARKS VICTORIA

AN ANIMAL LIBERATION SUBMISSION

ROBERT BLACKBURN

**We acknowledge the
Traditional Owners of
country throughout Australia
and recognise their
continuing connection to
land, waters and culture.**

**We acknowledge that this
document was written on
land stolen from and never
ceded by the Gadigal
People.**

**We pay our respects to their
Elders past, present and
emerging.**





**We don't have a duty to *spe*ak for the animals;
we have an obligation to be *he*ard for the animals.**

Matt Ball (2006)

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ABOUT ANIMAL LIBERATION

Animal Liberation has worked to permanently improve the lives of all animals for over four decades. We are proud to be Australia's longest serving animal rights organisation. During this time, we have accumulated considerable experience and knowledge relating to issues of animal welfare and animal protection in this country. We have witnessed the growing popular sentiment towards the welfare of animals, combined with a diminishing level of public confidence in current attempts, legislative or otherwise, to protect animals from egregious, undue, or unnecessary harm. Our mission is to permanently improve the lives of all animals through education, action, and outreach.

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19 January 2021

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I present this submission on behalf of Animal Liberation.

Animal Liberation is grateful to Parks Victoria, the Gunditj Mirring Traditional Owners Aboriginal Corporation, the Eastern Maar Aboriginal Corporation and the Barengi Gadjin Land Council Aboriginal Corporation for the opportunity to lodge a submission in response to the Greater Gariwerd Draft Landscape Management Plan.

We request that it be noted from the outset that the following submission is not intended to provide an exhaustive commentary or assessment in response to the Draft Plan. Rather, our submission is intended to provide a general examination and responses to select areas of key concern. As such, the absence of discussion, consideration or analyses of any particular aspect or component must not be read as or considered to be indicative of consent or acceptance.

For the purposes of this submission, Animal Liberation's focus covers aspects that we believe warrant critical attention and response.

A handwritten signature in black ink, appearing to read 'Alex Vince', written in a cursive style.



Alex Vince
Campaign director
Animal Liberation

ABBREVIATIONS

BGLCAC	Barengi Gadjin Land Council Aboriginal Corporation
BRSP	Black Range State Park
CAP	Conservation Action Plan
DAWE	Commonwealth Department of Agriculture, Water and the Environment
DE	Commonwealth Department of the Environment superseded by DAWE
DELWP	Victorian Government Department of Environment, Land, Water and Planning
DEPI	Victorian Government Department of the Environment and Primary Industries superseded by DELWP
DEWHA	Commonwealth Department of the Environment, Water, Heritage and the Arts superseded by DAWE
DJPR	Victorian Government Department of Jobs, Precincts and Regions
DPIE	New South Wales Government Department of Planning, Industry and the Environment
DSE	Victorian Government Department of Sustainability and Environment superseded by DELWP
EMAC	Eastern Maar Aboriginal Corporation
GGL	Greater Gariwerd Landscape
GMTOAC	Gunditj Mirring Traditional Owners Aboriginal Corporation
GNP	Gariwerd National Park
HRRC	Horsham Rural City Council
IUCN	International Union for the Conservation of Nature
IUCN SSC	International Union for Conservation of Nature's Species Survival Commission
NGSC	Northern Grampians Shire Council
NRP	National Recovery Plan
PV	Parks Victoria
RCAC	Rural City of Ararat Council
SGSC	Southern Grampians Shire Council
SWIFFT	State Wide Integrated Flora and Fauna Teams
VEAC	Victorian Environmental Assessment Council

EXECUTIVE SUMMARY & RECOMMENDATIONS

Animal Liberation appreciates the opportunity to provide the following submission in response to the Draft Plan published by Parks Victoria concerning a new management regime governing the Gariwerd National Park.

A number of concerns are articulated throughout this submission, the core of which are briefly described here. These are followed by modest recommendations provided in response. Many of the concerns relate to the component of the plan which proposes the reintroduction or translocation of several species into the management area. Though the focus of these concerns in this submission relate to the dingo, many of these have the potential to detrimentally or disastrously impact upon other species in situ or included in the proposal.

ONE

The contents of the Draft Plan do not provide sufficient detail of the proposal to reintroduce or translocate several listed species within the park. It does not reference legislated requirements nor provide adequate preliminary information in order for respondents to articulate clear submissions or formulate recommendations in response.

RECOMMENDATION
ONE

that the legislative requirements governing the reintroduction or translocation of native species under existing state law be adequately addressed prior to the adoption of any final plan arising from this consultation process. Such consideration must be made publicly available and seek feedback in order to address its absence in the present Draft Plan.

TWO

The Draft Plan has not provided respondents with sufficient data with which to draw conclusions and formulate responses, including recommendations, regarding the nature and potential of risks associated with the reintroduction proposal.

RECOMMENDATION
TWO

that Parks Victoria conduct a detailed and replicable study assessing the number of extant species at potential risk of predation post-reintroduction and that the data obtained be made publicly available;

RECOMMENDATION
THREE

that the plan be accompanied by a publicly available strategy for quantifiably assessing the presence or absence of ecological benefits accrued from the reintroduction proposal and, if adopted, its processes. This strategy should predict such benefits and account for any anticipated obstacles, be crafted prior to its adoption and be made publicly available for comment as an addendum to the current draft;

RECOMMENDATION
FOUR

that Parks Victoria account for the impact of the coronavirus in limiting the application and efficacy of fieldwork to assess the abundance and population dynamics of fauna in the GNP;

THREE

The Draft Plan has not sufficiently addressed a range of legislated requirements for several proposals included in its contents. Similarly, it has not referenced several relevant policies which interact with these proposals.

RECOMMENDATION
FIVE

that the Conservation Action Plan (CAP) be reviewed and amended upon its expiration in 2023 in line with any relevant strategic policies included in the forthcoming management plan. Such a review should be made publicly available for comment;

THREE
CONTINUED

The Draft Plan has not sufficiently addressed a range of legislated requirements for several proposals included in its contents. Similarly, it has not referenced several relevant policies which interact with these proposals.

RECOMMENDATION
SIX

that the publication of the relevant Land Management Strategy currently in development under the Parks Victoria Act 2018 should be made publicly available, open to comment, and act as an addendum to the forthcoming management plan;

RECOMMENDATION
SEVEN

that the requirements applicable to proposals to reintroduce or translocate native species in the state of Victoria be addressed, with the outcome of the assessment of this be made publicly available upon receiving;

RECOMMENDATION
EIGHT

that international guidelines relating to species reintroductions be consulted with a view to assessing the appropriateness of the proposal;

FOUR

The existence of ongoing and future lethal control programs in the management area and the vicinity pose a range of serious and potentially devastating threats to the appropriateness and acceptability of the reintroduction proposal. These threats may be amplified by environmental hazards or natural disasters.

RECOMMENDATION
NINE

that the feasibility and efficacy of alternative control techniques on private properties surrounding the GNP must be investigated and transparently assessed, particularly as these apply to lethal control applied to protect farmed animals from possible dingo predation post-reintroduction;

FOUR
CONTINUED

The existence of ongoing and future lethal control programs in the management area and the vicinity pose a range of serious and potentially devastating threats to the appropriateness and acceptability of the reintroduction proposal. These threats may be amplified by environmental hazards or natural disasters.

RECOMMENDATION
TEN

that the Victorian Government provide adequate funding to accurately assess the viability of alternative, non-lethal forms of wildlife control, including but not limited to immuno-contraception, predator-friendly agricultural practices and the deployment of guardian animals;

RECOMMENDATION
ELEVEN

that Parks Victoria consider and implement a strategy underpinned by a policy regarding actions to be taken in the event of a significant bushfire event (i.e., actions relating to intensified control operations targeting predators post-fire);

FIVE

The geographic demographic of the region triggers several issues inadequately addressed in the Draft Plan. For example, that over 90% of the land adjoining the park is private and that 100% of the dingoes proposed to be reintroduced are legally "unprotected" should they migrate or travel to these bordering areas raises significant concerns for their long-term welfare and the proposals broader prospects of success.

RECOMMENDATION
TWELVE

that the interaction of pre-existing state policy be reviewed in conjunction with proposals to reintroduce native species within the region, particularly provisions which "unprotect" dingoes on private properties;

FIVE
CONTINUED

The geographic demographic of the region triggers several issues inadequately addressed in the Draft Plan. For example, that over 90% of the land adjoining the park is private and that 100% of the dingoes proposed to be reintroduced are legally "unprotected" should they migrate or travel to these bordering areas raises significant concerns for their long-term welfare and the proposals broader prospects of success.

RECOMMENDATION
THIRTEEN

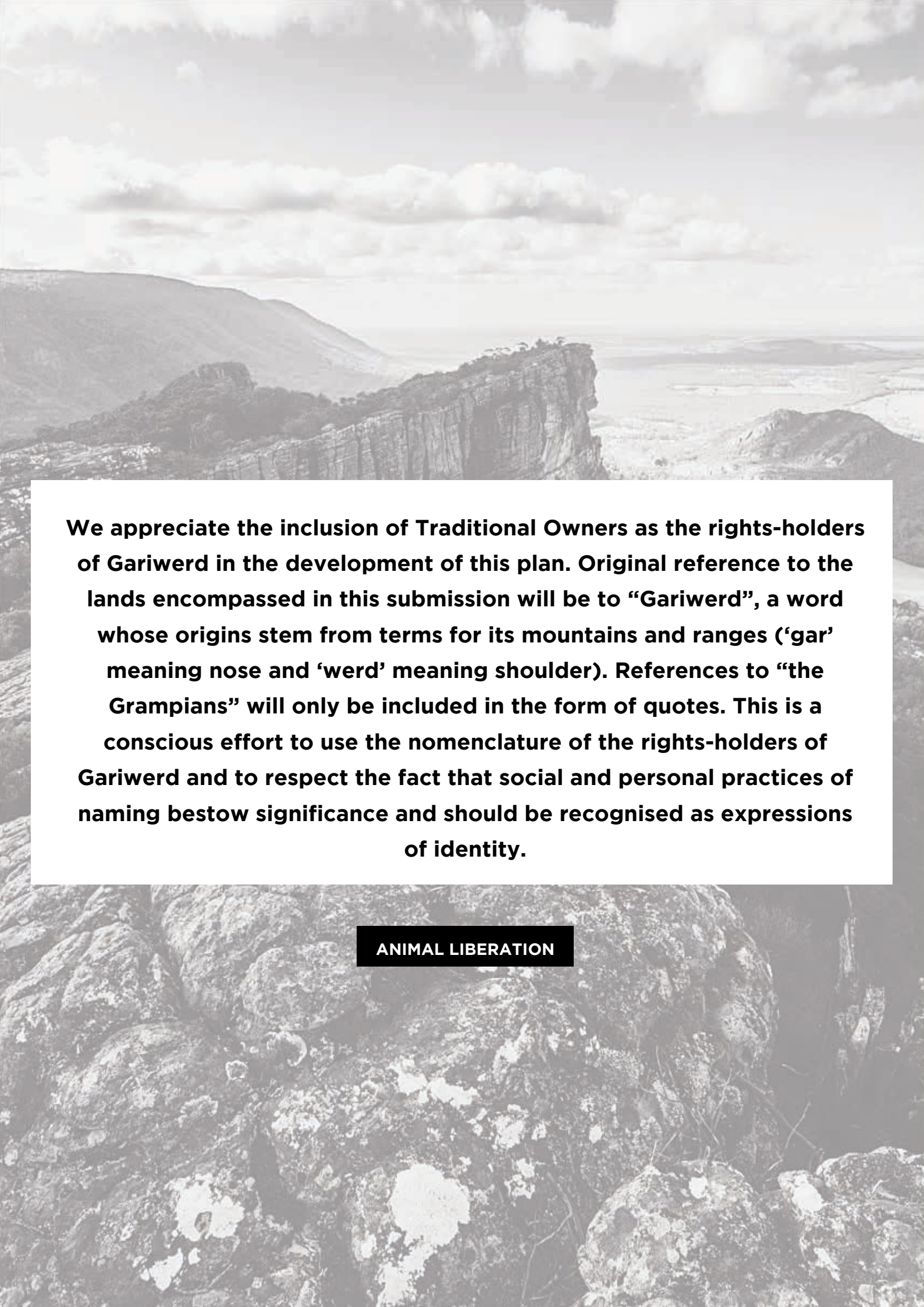
that the interaction of these policies be mapped against the principles and requirements under state law, particularly regulatory mechanisms such as the Procedure Statement for Translocation of Threatened Native Fauna in Victoria, concerning the validity or appropriateness of the proposal under current policy;

RECOMMENDATION
FOURTEEN

that Parks Victoria conduct an attitudinal survey seeking stakeholder feedback to assist in obtaining an understanding of public perceptions concerning the proposed species reintroductions in the GNP;

RECOMMENDATION
FIFTEEN

that partnerships with external bodies, including but not limited to government departments, agencies or private landholders must be maintained, as per the Draft Plan, to "deliver many of the final plan's strategies". These strategies must account for the series of concerns outlined in this submission, including ongoing and planned lethal control programs and the ambiguities concerning the protection of the dingo under existing state government policy.



We appreciate the inclusion of Traditional Owners as the rights-holders of Gariwerd in the development of this plan. Original reference to the lands encompassed in this submission will be to “Gariwerd”, a word whose origins stem from terms for its mountains and ranges (‘gar’ meaning nose and ‘werd’ meaning shoulder). References to “the Grampians” will only be included in the form of quotes. This is a conscious effort to use the nomenclature of the rights-holders of Gariwerd and to respect the fact that social and personal practices of naming bestow significance and should be recognised as expressions of identity.

ANIMAL LIBERATION

GEOGRAPHY, HERITAGE & BIODIVERSITY**GEOGRAPHY**

- 1.1 The land covered by the Draft Plan is part of the Greater Gariwerd Landscape (hereafter, 'GGL'). The GGL is described in the Draft Plan as "an island of high biodiversity surrounded by extensively modified land on the surrounding plains" (PV 2020a). The Gariwerd National Park (hereafter, 'GNP'), the principal subject of this submission, is located in central-western Victoria and is approximately 260km from Melbourne (PV 2003). The park was originally proclaimed in July 1984 under the Victorian National Parks Act 1975, though between 1986 and 1998 small additions and excisions to its ranges have been made (PV 2003). Prior to its proclamation in 1984 the GNP was designated as a State forest (PV 2020a).
- 1.2 The GNP is the fourth largest national park in Victoria and is billed in the Draft Plan as "one of the best known and most significant parks" in the state (PV 2019a; PV 2020a). It is "a dominant feature in the landscape of western Victoria" and "a defining image of Australia" (PV 2003; Commonwealth of Australia 2017; PV 2020a). The combined area encloses several pockets of private land, totalling close to 10,000ha. The GNP, combined with Black Range State Park (hereafter, 'BRSP'), the Grampians State Forest, Claude Austin Reserve and Rocklands Reservoir Reserve, form an area of over 222,000ha (PV 2003). It comprises landforms with sweeping slopes, peaks, cliffs and plains. The plan explains that such scenery has significant "aesthetic characteristics" which often "evoke strong emotional responses" (PV 2020a). Over one million visits and an estimated tourist expenditure exceeding \$500m each year makes the GNP crucial to the local economy and employment opportunities (PV 2020a).
- 1.3 Historically, the surrounding area has been "predominantly cleared for farming" (PV 2003; Clark et al. 2014; SGSC 2016a; DJPR 2020). For example, the Southern Grampians economy is described as largely built upon the agriculture and tourism sectors (DELWP 2020a). The GNP includes areas which are within the boundaries of three LGAs: Northern Grampians Shire Council (hereafter, 'NGSC'), the Rural City of Ararat Council (hereafter, 'RCAC') and the Southern Grampians Shire Council (hereafter, 'SGSC'). It also adjoins the northern border of the Horsham Rural City Council (hereafter, 'HRCC').
- 1.4 Over 90% of the land adjoining the park is private (PV 2003). This geographic demographic will have serious ramifications which will be further elucidated in subsequent sections of this submission.

HERITAGE: "A SITE OF CONTESTING VISIONS"

- 1.5 The GNP has been described as important at a state, national and international level. The Draft Plan cites findings by the Australian Heritage Council stating that the GNP is of "outstanding heritage significance" for its culture, biodiversity and landscape (PV 2020a). As such, the GNP is included in the National Heritage List and is assigned the World Conservation Union's Category II (National Parks) of the United Nations' list of National Parks and Protected Areas (PV 2003; Commonwealth of Australia 2017; PV 2020a).
- 1.6 The listing schedule for the entire GNP identifies evidence of Aboriginal occupation extending over 20,000 years (DAWE n.d.). The Draft Plan acknowledges that the region has been "the living, hunting, gathering, cultivating, ceremonial, Dreaming Country and territory" of the Jadawadjali and Djabwurring Nations for over 22,000 years (PV 2020a). Previous publications by Parks Victoria noted that the Dreamtime and culture of the Gariwerd is "integral" to the Gournditch-Mara, Kirrae Wurrung and Wotjobaluk Nations (PV 2003). The traditional boundaries of the Djabwurring and Jardwardjali people dissect the area of the park (Clark et al. 2014).
- 1.7 The region has been described as "the heart" of many Aboriginal creation stories and contains over 80% of the rock art sites in Victoria, constituting "one of the major rock art regions" of southeastern Australia (Gunn 1984; EMAC 2016; McDonald and Clayton 2016; Commonwealth of Australia 2017). Though the rock art located in the area consists primarily of small depictions of geometric figures, some depict animal tracks, birds and specific species with enduring cultural connotations (McDonald and Clayton 2016; Commonwealth of Australia 2017).
- 1.8 One of the significant Dreamtime sites in the planning region is Bunjils Shelter, found in the BRSP (Clark 2014a). It is significant as being the only known site containing a depiction of Bunjil, "the creator being in his ancient form" who is central to Aboriginal Australian cultural life (PV 2013; Wilkie 2018). As the "Great Ancestor Spirit", Bunjil created the world, including its plants, animals and people, and "liked them so much that he decided to make them his earthly home" (Massola 1968; Clark 2014b; Wettenhall 2018). Bunjils Shelter is believed to be where the spirit sat with two dingoes to gaze over his creations (PV 2013). Bunjil is highlighted in the Draft Plan and is characterised as per the outline provided above (PV 2020a).

1.9 Despite these widely recognised facts, the region has been “a site of contesting visions” of history and heritage (Wilkie 2018). Many of these have been associated with the enduring connections to the region outlined in this subsection. The GNP has been described as “the focus of a protracted indigenous rights battle” (Ferguson 2019). In 2015, community meetings were held and led to the lodging of a native title claim over the GNP (EMAC 2016). The claim covered over 1500 square kilometres of Crown land and represented the first claim of its kind covering the GNP (Willingham 2016). Despite the Draft Plan noting that partnerships and recognition processes between state authorities and Traditional Owners have “evolved in legislation and government policy”, that the forthcoming plan will not be a joint management plan indicates that significant limitations remain (PV 2020a).

BIODIVERSITY: "AN ECOLOGICAL WONDERLAND"

1.10 The GNP has been variously described as “a core area for biodiversity”, an “ecological wonderland” and a biological “stronghold”; it has been recognised as “the single most important botanical reserve in Victoria” (PV 2000a; PV 2003; PV 2019b; PV 2020a). It has been described as “a unique environment” which is “home to a range of native animals, plants and birdlife” (Price 2020). It has high fauna diversity, including over 300 vertebrate species and a diverse population of macropods (PV 2003).

1.11 According to Parks Victoria, over a third of Victoria’s flora is contained within the GNP (PV 2020a). Many faunal species found within the park are considered threatened. Some, such as the red-tailed black cockatoo and the smoky mouse, are nationally listed species (Menkhorst 2003; DAWE 2021). Others, such as the swift parrot, the warty bell frog, the brush-tailed rock wallaby, the long-nosed potoroos and the heath rat, are listed as vulnerable (Commonwealth of Australia 2017). The region also contains a range of threatened flora species, including several orchids, shrubs and flowers (SWIFFT 2021a; SWIFFT 2021b).

1.12 Several historical and contemporary surveys of wildlife found within the GNP have been carried out. Many of these focus on either vertebrates or invertebrates, exclusively. Previous management plans note that “the park is of major importance for 167 species of threatened flora and fauna of which 24 are endemic to the park” (PV 2003). For example, between December 2003 and March 2007, one survey of vertebrate fauna found 114 species, including 30 mammals, 17 reptiles, 3 amphibians and 65 birds (Homan 2008). Others are continual and are the result of partnerships between Parks Victoria and survey groups, such as the Fauna Survey Group of the Field Naturalists Club of Victoria (Drury 2016).

1.13

The management area is part of five Victorian bioregions, with 98% of it within the designated Greater Grampians bioregion (PV 2003). However, in some areas, such as the Dundas Tablelands, less than 1% of the landscape in the surrounding bioregion is considered “intact” (VEAC 2010). Though the Draft Plan maintains that “the landscape is vital for biodiversity conservation”, it does not contain any information of this kind relating to the land in the management zone. Rather, it notes that “the rich biodiversity and intact ecosystems managed under regimes of Aboriginal land management have unequivocally been degraded since colonial invasion” (PV 2020a).

1.14

The summary of the community consultation process included in the formulation of the Draft Plan identified environmental conservation as a key theme and concern among stakeholders. Of particular relevance to the present submission is the reference in the Draft Plan to stakeholders identifying a perceived “need to reduce pest plants and animals in the landscape to conserve the environment”. The corresponding response offered by Parks Victoria regarding this is that strategies included within the Draft Plan “provide additional attention to environmental conservation measures, particularly pest plant and animal control”. These strategies and the rubric underpinning them are outlined in the following section of this submission.

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As outlined above, Animal Liberation understands and commends efforts made by the Victorian Government to provide meaningful protection to important places containing irreplaceable cultural value to Traditional Owners and indigenous Australians. For this reason and those outlined below, the following submission will focus on an aspect of the plan we believe warrants critical attention: principally, proposals to reintroduce or release carnivores in GNP and a range of potential ramifications arising from land-use and/or strategies or procedures contained within pre-existing management policies or plans. These will be clarified and consolidated in the subsequent sections of this submission.

MANAGEMENT RESPONSIBILITIES

- 2.1 Parks Victoria is responsible under a range of legislation and associated regulations intended to govern the protection and management of parks and reserves in Victoria. These provide “a rigorous framework for Gariwerd” (PV 2020a). The relevant legislation, regulations, policies, agreements, plans and strategies include state and Commonwealth law and state policies and plans. A schematic of these are provided in Appendix 2.
- 2.2 As per the legislative provisions outlined in the Draft Plan and the associated regulatory regime, Parks Victoria is obliged to “prioritise preserving and protecting environmental and cultural values” in the GNP (PV 2020a). For example, the Parks Victoria Act 2018 defines the objects the authority must regard in the performance of its functions, powers and duties. Under this Act, a Land Management Strategy is currently under development. It intends to provide a guide to “the protection, management and use of the terrestrial, coastal and marine parks and reserves” managed by Parks Victoria. This strategy must be made publicly available and invite public feedback or commentary upon publication. Respondents to the present consultation process should be provided with this document and be invited to provide comment relating to any relevant components associated with the contents of the Draft Plan and the forthcoming final plan.

2.3 Many of the responsibilities under the Parks Victoria Act are provided for in the objects of the National Parks Act 1975. For example, the objects of the latter are to preserve and protect the natural environment of parks or reserves, including flora, fauna, scenic, archaeological, ecological, geological or historic sites therein. Some of the properties included in these objects are similarly covered under provisions of the Aboriginal Heritage Act 2006. This Act recognises and thereby protects and conserves cultural heritage, including environmental and ecological knowledge. In the context of the GNP, this relates to recorded sites and associated connections across the landscape. The Draft Plan acknowledges that “the whole landscape can reasonably be considered an Aboriginal place for the purpose of management” per the provisions in the Aboriginal Heritage Act (PV 2020a). Responsibilities are also contained within the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 per the GNP’s inclusion as a place in the National Heritage List.

THE DRAFT MANAGEMENT PLAN

2.4 In April 2019, Parks Victoria issued a press release announcing plans to review the GNP management plan. The purpose of the review was described as a measure intended to secure its “environmentally significant and sensitive landscape” so that it “can continue to bring joy to people, and protect plants and animals well into the future” (PV 2019a). The impetus for the initiation and development of a new management plan is cited as a recognition of “the risks and opportunities” associated with evolving partnerships, changing recognition processes and successive environmental hazards, including major fires and floods.

2.5 The Draft Plan referred to in the 2019 press release and under consideration here describes its contents as “a strategic guide” applicable to all areas within the landscape planning area, including the GNP, BRSP and smaller reserves within the vicinity. In total, the forthcoming plan will apply to a total of 17 parks, reserves and unreserved Crown land managed by Parks Victoria. Combined, this accounts for approximately 180,000 ha. The largest of the parks subject to the new plan is the GNP. Critically, it does not apply to private land or public areas managed by a range of external authorities, local governments, government departments, agencies or private landholders. However, the draft plan does maintain that partnerships with these bodies will be maintained to “deliver many of the final plan’s strategies” (PV 2020a). See Appendix 1 for a schematic of the areas contained within the planning area and examples of those not covered.



PROPOSED GOALS AND STRATEGIES

2.6 The Draft Plan proposes the development and implementation of a range of strategies informed by “an improved understanding of the significant cultural, natural and recreational values of the area” (Major 2020; PV 2020a). The Draft contains a strategic rubric containing a vision, a range of strategies, and corresponding goals. The vision is described as “long-term and aspirational” insofar as it envisages the outcomes of proposed management actions. The outcomes are described within the draft plan as goals which are intended to describe how its vision will be achieved. The draft also contains strategies proposed to be implemented in the achievement of these goals and, by extension, its broader vision. These strategies are mapped according to priority. For example, immediate strategies are to be launched within 1-5 years and medium strategies after 5 years. Others are cited as being implemented as required. Many of the latter are expected to be implemented “as part of day to day management” (PV 2020a).

2.7 The new plan is described as “landscape-scale” and intends to provide management strategies governing a range of values and threats, including climate change, the control of introduced species and sustainable recreation and tourism activities (PV 2020a). The plan states its intention is to define and provide for the ongoing use of the area “for conservation, cultural strengthening and renewal, recreation, interpretation and education”. It intends to do so by “establishing a long-term vision for Gariwerd that reinforces the importance of the landscape for cultural, environmental, social, economic and spiritual values”. It will also manage the activities and impacts of visitors. The prevailing plan is expected to govern for the following 15 years (PV 2020a).

2.8 The draft plan includes proposed “management zones”. In these areas, specified management controls are proposed to be applied and it stipulates the permissibility of certain uses and activities. According to the Draft Plan, these zones are “used to summarise the broad intent” of a particular areas value, potential uses and indicate the “management directions” which have been allocated priority. The proposed management zones include:

2.8.1 **Cultural Conservation Zones (CCZs)**

CCZs are intended to protect areas where the highest cultural landscape values are located and include natural processes and biodiversity. CCZs are proposed to cover the entire of BRSP, Black Range Scenic Reserve, Brady Swamp State Game Reserve, Red Rock Bushland Reserve, Mount Talbot Scenic Reserve and the majority of the GNP.

2.8.2 **Conservation and Recreation Zones (CRZs)**

CRZs are intended to protect environmental and cultural values while simultaneously permitting recreation and tourism activities on the basis that they do not impose “significant impact on natural processes”. CRZs are proposed to cover the entire of each reserve managed by Parks Victoria and unreserved Crown land within the management area. See Appendix 1 for a list and Appendix 2 for a map.

2.8.3 **Reference Area Zones (RAZs)**

RAZs are aligned with Reference Areas proclaimed under the Reference Areas Act 1978. In these areas “all human activity is kept to the essential minimum and, as far as practicable, the only long-term change results from natural processes”. Access to such areas is restricted yet may be accessed for management, emergency operations or approved research, including the sampling of data to be used to compare impacts in unrestricted areas. RAZs are proposed to cover a range of areas contained within the GNP, including the Sisters, Moora Valley, Grasstree Creek.

2.8.4 **Recreation Development Zones (RDZs)**

RDZs are described as small areas which high facility development which cater for high visitor levels. RDZs are proposed to cover the Brambuk Cultural Centre and adjacent grounds.

2.9 In addition to the zones outlined in s2.8, the Draft Plan also proposes the development of “overlays”. These include the Sky Country Overlay and the Natural Quiet Overlay. The purpose of these is to protect views of the GNP and recognise the importance of “natural quiet” in key habitat and cultural areas, respectively (PV2020a). Further, the Draft Plan includes proposals to allocate certain regions of the park using the following designations:

2.9.1 **Remote and Natural Areas (RNAs)**

RNAs are described within the National Parks Act. The Act prescribes directions intended to prevent or minimise degradation to these areas condition or appearance.

2.9.2 **Visitor Experience Areas (VEAs)**

VEAs are areas wherein planned recreational activities or visitor experiences are offered. These cannot contravene any regulatory obligations or associated conservation objectives.

2.9.3 **Special Protection Areas (SPAs)**

SPAs are those areas in which higher value and intensity of management is required. This may include restrictions on activities described in s2.12.2. The Draft Plan proposes the development of three (3) types of SPA:

2.9.3(a) **SPAs for Cultural Values**

2.9.3(b) **SPAs for Natural Values**

2.9.3(c) **SPAs for Cultural Activity**

2.10 Of particular relevance to the present submission is the proposal to develop Special Protection Areas for Natural Values. These are intended to “protect significant biodiversity and habitats”. These have been defined according to assessment of critical habitat and the corresponding importance of conservation placed on threatened mammals in the GNP. The Draft Plan notes that Special Protection Areas for Natural Values have been identified in areas of the GNP which contain critical habitat for the brush-tailed rock-wallaby, the long-nosed potoroo, the smoky mouse and “potential sites for the future reintroduction of captive-bred populations” of these species (PV 2020a). For more on past, proposed and future reintroduction programs see Section 3 and 4 of this submission.

2.11 Animal Liberation recognises the value and importance of each goal and the intended purpose of each corresponding strategy, including the designation of specific areas as core regions for specific action. For example, we believe that healing, reconciliation, recognition of culture and heritage to Traditional Owners and associated responses and strategies concerning the regions colonial history are non-negotiable and must be incorporated in any future plan. Of particular relevance to the present submission, however, are strategies concerning the management of wildlife in the GNP. Several of these, such as grazing and agriculture in the region and their connection to the management of introduced wildlife, are interconnected. While we recognise that the latter is described within the Draft Plan as a component of protecting and managing cultural values, we maintain that there are several crucial elements which have been neglected in the construction of its contents. These concerns are outlined in subsequent sections of this submission.

COMPLIANCE & CONFORMITY WITH PRE-EXISTING STATE POLICY

- 2.12 Parks Victoria maintains that the content of the Draft Plan is “supported by and reflects legislation and government policies for public land” (PV 2020a). For example, this statement is evidenced by reference to the Reference Areas Act 1978 in the proclamation and designation of RAZs and reference to the National Parks Act in the designation of RNAs. It notes that it cannot amend the extent of management aims stipulated by the corresponding Act. For example, the Draft Plan explains that activities offered in VEA designated areas cannot contravene legislated responsibilities. Similarly, it notes that in addition to the proposal to develop the SPAs outlined in s2.9, a range of legislative provisions exist to protect areas in the management zone. For example, this applies to ecological communities listed under the Flora and Fauna Guarantee Act. Other protections are provided under the Catchment and Land Protection Act, particularly Special Water Supply Catchment Areas. For an overview of the relevant legislation, see Appendix 2.
- 2.13 Despite these inclusions, there are several ambiguities contained within the Draft Plan. For example, native animals are protected under the Wildlife Act 1975 and under its provisions cannot be translocated without authorisation (DELWP 2021a). Despite reference to authorised uses and the need to manage these within existing legislative and policy frameworks within the Draft Plan, these primarily relate to infrastructure development, recreational activities and mitigation measures (PV 2020a). There is no reference to the requirement to obtain an authorisation to translocate native animals who are legally protected under the Wildlife Act 1975 in the contents of the Draft Plan. Though this is undoubtedly known to those responsible for drafting the proposal to reintroduce native species in the GNP, the omission represents an example wherein a proposal contained within its contents is not mapped against existing legislation or policy. As such, it does not sufficiently address its limitations or adherence to current state law. These concerns are further outlined in the following section of this submission.
- 2.14 Further, despite each of the Traditional Owners groups (i.e., BGLCAC, EMAC and GMTOAC) being recognised as having connections to Gariwerd, having customary responsibility to “Care for Country” and the corresponding acknowledgement of their role, legal and moral legitimacy as rights holders, the final document will not be a joint management plan. Rather, it is intended to be a document which “sets the foundations of how Parks Victoria and Traditional Owners transition to a future joint management plan” (PV 2020a). We understand that this is in accordance with current legislation and that the co-creation of the Draft Plan with these groups is a gesture towards an eventual joint management plan. Such a gesture must also be codified in the forthcoming Land Management Strategy.



PREVIOUS MANAGEMENT PLANS & ASSOCIATED STRATEGIES

- 2.15 The GNP has been the subject of similar management plans in the past. The Plan notes the release of previous plans in 1998 and 2003. During the intervening years, partnerships and recognition processes regarding Traditional Owners have evolved (PV 2020a). This is one reason the present plan includes insights from Traditional Owners and the preceding cultural values report commissioned by Parks Victoria (Major 2020). The previous section of this submission outlined some limitations that remain in this regard.
- 2.16 Despite these limitations, previous management plans focused on partnerships with the community, respect for Aboriginal aspirations, perspectives, traditions and interests, the development of specific strategies (such as the Gariwerd/Grampians Aboriginal Cultural Heritage Strategy), protection of aquatic ecosystems and the promotion and marketing of the park to attract more tourism.
- 2.17 The 2003 management plan contained similar pronouncements regarding the cultural and ecological value of the GNP. For example, it noted that the GNP is “renowned for its spectacular natural scenery and wildflowers, diversity of flora and fauna, Aboriginal rock art and significant post-settlement heritage sites”. Within this plan, the maintenance of ecological communities was highlighted with a view to “restoration of disturbed communities in the long term” (PV 2003). The present plan can thus be understood as the fruition of some of the earlier management directions found in previous management plans published by Parks Victoria.
- 2.18 In 2019, Parks Victoria released the Conservation Action Plan (hereafter, ‘CAP’) for land managed in the GGL. The Draft Plan explains that the CAP “outlines Parks Victoria’s understanding of the major threats to nature and wildlife across the cultural landscape”, including “predation by introduced predators [and] over-grazing by native and non- native herbivores” (PV 2020a). The CAP is a substantial document which should be considered as an accessory to the Draft Plan and any forthcoming management plan informed by it.

2.19 The CAP “defines and priorities conservation strategies” in the GGL until 2023 and as such should be reviewed and amended accordingly in line with any relevant strategic policies included in the forthcoming management plan (PV 2019b). Animal Liberation has a number of concerns associated with the contents of this CAP and proposals contained within the Draft Plan, particularly those relating to the reintroduction of native predators in the management area. A brief discussion of inconsistencies and associated concerns between the identified threats and the corresponding objectives or strategies contained within the CAP and the Draft Plan is provided in the following subsection (Managing interests and intent).

MANAGING INTEREST & INTENT

2.20 The 2019 press release made no mention of plans to reintroduce animals into the GNP (PV 2019a). Rather, it referenced the importance of rock climbing and other recreational activities, such as hiking and camping. This is in line with increasing tourism numbers and expenditure cited in the plan (PV 2020a). Due to its mountains and escarpments, the GNP has been a popular site for rock climbing and tourism (Clark et al. 2014). The former represents one of the contentious components of the proposed plan insofar as a range of restrictions have been imposed on rock climbing activities in select parcels of the park (Preiss 2020). Previous management plans have included climbing clubs as key consultation groups (PV 2003). GNP has been described as “the focus of a protracted indigenous rights battle” (Ferguson 2019).

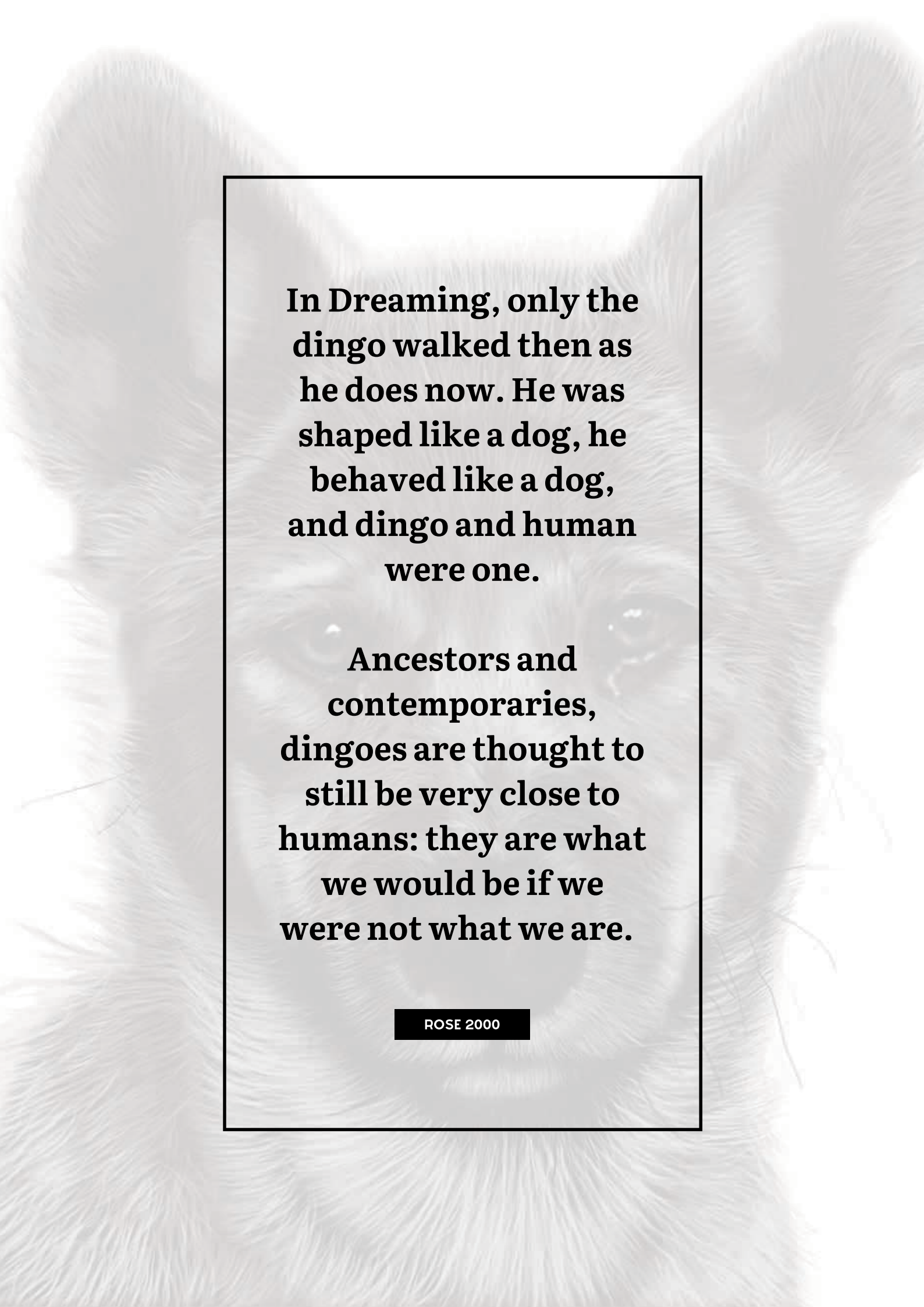
2.21 Parks Victoria conducted a community consultation process seeking feedback on the Draft Plan prior to its release. The Draft Plan includes a summary of this feedback. The summary, included in the Draft Plan as Table 1.2, outlines the key themes raised and a response offered by Parks Victoria (PV 2020a). These themes, specifically conservation, were alluded to in the previous section of this submission. Another of the key themes raised during this was cultural heritage protection. The Draft Plan notes that “participants wanted to see improvement in the way the cultural significant of the landscape is conveyed to visitors, including better education and information for visitors and recreational users to protect cultural heritage”. The response offered by Parks Victoria regarding this is that strategies included within the Draft Plan “seek to recognise and protect cultural values through proposed management zones and overlays, increased education and interpretative signage and resources in the landscape, as well as building awareness within the visitor community and recreational user groups” (PV 2020a). See s2.6-11 for a brief outline of these.

CONCLUSION

2.22 The impetus of the Draft Plan appears to be a response to the growing recognition of "rewilding" as an engineered reorganisation of an ecosystem, specifically via the identification of core values and subsequently reorganising the structure of biota "on a preferred trajectory" (Pettorelli et al. 2017). It represents, through the proposal to reintroduce or translocate once-endemic species to their original ranges, an attempt at ecological restoration (Carey 2016).. However, as the remainder of this submission will illustrate, the premise that rewilding will restore an area or a landscape to its natural state must be approached with a thorough understanding of the root causes of species decline and the surrounding ecology (Carver 2016).

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In Dreaming, only the dingo walked then as he does now. He was shaped like a dog, he behaved like a dog, and dingo and human were one.

Ancestors and contemporaries, dingoes are thought to still be very close to humans: they are what we would be if we were not what we are.

ROSE 2000

BACKGROUND & CURRENT SCIENCE

As outlined in the previous sections, the proposal to reintroduce or translocate native species in the GNP forms the foundation of this submission. As this element relates to a range of preexisting and contiguous policies or state strategies, such as the CAP and proposals contained within the Draft Plan itself, these will be briefly described. This section will outline the theoretical basis of species reintroduction or translocation, review several relevant projects carried out in Australia, their position under existing law and discuss the proposal to reintroduce native predators in the GNP. Finally, the subsequent sections will discuss the rationale behind this proposal and a series of potential problems we believe must be thoroughly and transparently considered on the basis of the evidence provided in sections 3, 4 and 5.

GENERAL

- 3.1 The loss of biodiversity is a significant global concern. The protection of threatened species is a corresponding aim. Biodiversity loss has significant consequences, not only in terms of loss of species but of ecosystem function more broadly (Thompson et al. 2012). The number of species from all major taxonomic groups listed as vulnerable, endangered or critically endangered has risen dramatically between 1996 and 2020 (IUCN 2020). This is particularly pronounced in Australia as we have the highest mammalian extinction rate in the world (Short and Smith 1994). Though some species have been disproportionately affected, catastrophic declines in top-order or apex predators have occurred worldwide (Stier et al. 2016). Much of this decline has occurred post-European invasion (Woinarski et al. 2015).
- 3.1.1 The catastrophic loss of biodiversity during and following the 2019-20 bushfires and the subsequent lack of evidenced data used to assess environmental impacts provides a further pressure which must be considered in conjunction with these (van Eeden et al. 2020).
- 3.2 In this climate, reintroductions and translocations have become an important tool in attempts to restore or protect endangered or threatened species and ecosystems they occupy (Gedir et al. 2004; IUCN SSC 2013; Armstrong et al. 2015). Though it is a comparatively new field, reintroduction biology has become increasingly important as threats to biodiversity and ecosystem health amplify in response to a range of stressors, including

- 3.2 habitat loss, fragmentation and predation (Armstrong et al. 2015; Shier 2015; Stier et al. 2016). As such, “conservation through intervention” has become increasingly common (IUCN 2013).
- 3.3 The theory underpinning such projects is principally based on research and fieldwork intended to inform the movement of animals, primarily threatened species for conservation purposes (Taylor et al. 2017). In practice, it may take a variety of forms. Reintroduction is defined by the IUCN as “the intentional movement and release of an organism inside its indigenous range.
- 3.4 Each of the techniques described above represent an engineered attempt to “recreate” a natural, pre-European ecosystem (Kinnear et al. 2002; Tan 2015; West et al. 2020).
- 3.5 Reintroduction biology can be understood as a response to two related and global ecological crises: biodiversity loss and adverse impacts on ecological processes and services (Thompson et al. 2013). As a result of biodiversity loss, spatial and temporal patterns of species abundance or existence are structurally altered by extinction and/or introduction (i.e., the deliberate or accidental release of exotic species often referred to as invasion). Though focus is principally upon species loss, this phenomenon inherently triggers a range of novel ecological interactions (Valiente-Banuet et al. 2015). This is comprehensible in light of the data suggesting that between two and five species are lost per hour in tropical ecosystems alone, equating to approximately 16 million populations per year or 1800 populations per hour (Singh 2002). This has justifiably led to the characterisation of species loss as “the biodiversity crisis” (Olson et al. 2002). As such, the drive to halt or reverse extinction processes have often taken precedence (Jørgensen 2013). However, focus on species loss alone neglects the concurrent impacts it causes; biodiversity is a variable which informs an ecosystems ability to maintain biodiversity itself (Thompson et al. 2013).
- 3.6 Reintroductions and translocations are often a controversial form of wildlife management (Ewen et al. 2014; Bickel et al. 2020). They have a varied record and reviews of such programs have historically highlighted that many are “poorly planned or implemented” (Griffith et al. 1989; Ewen et al. 2014). Some have concluded that such programs often focus on short-term population establishment while others focus on their high failure rate as cause for greater or more effective monitoring procedures and protocol (Griffith et al. 1989; Short et al. 1992; Armstrong and Seddon 2008; Taylor et al. 2017). For example, studies have found that translocation of some native species “is usually fatal” (DELWP 2021a). As such, they must be justified and contain clear objectives, transparent and thorough assessment and identification of risks and measures to quantify or gauge its performance (IUCN 2013).

- 3.7 Though there are some significant reintroduction success stories, perhaps the most well-known of these are the wolves of Yellowstone National Park, there has been little improvement in the success rate of species reintroductions over time (Fischer and Lindenmayer 2000; Smith et al. 2003; Short 2009). A review of 380 reintroductions and/or translocations in Australia found that only half could be considered successful (Short 2009).

PREDATOR REINTRODUCTIONS

- 3.8 The primary threat facing top-order predators is human activity and perception (Hook and Robinson 1982; Lennox et al. 2018). Human tolerance of carnivores has been cited as a key element in the success of their conservation (Gangaas et al. 2014). This often stems from the seemingly innate incompatibility their presence imposes on production or amenity (Hayward and Somers 2009; Hytten 2009). As a result, apex predators have been heavily persecuted for millennia (Prugh et al. 2009). This is true of dingoes, for example.
- 3.9 The organised reintroduction of predators to parts of their former natural range is one method wildlife managers and relevant government authorities or departments employ in attempts to protect or conserve threatened species (Hayward et al. 2007). This is because they can influence ecosystems through “top-down control of the distribution and abundance of other species” (Lennox et al. 2018). Ecologists have argued that “a shrinking supply of wilderness” coupled with a “growing recognition that top-order or apex predators have a profound influence on ecosystems” means that the long-term survival of carnivores is one of modernity’s “greatest conservation challenges” (Lamb et al. 2020). Some have suggested that a key question in conservation is whether the conservation of large carnivores is equivalent to the conservation of biological diversity (Redford 2005).
- 3.10 Worldwide there is increasing interest in the organised restoration of top-order or apex predators via reintroduction or translocation as it offers a beneficial means of “manipulating ecological processes and species abundance” (Ritchie et al. 2012). This is often based on evidence which suggests that their presence and interactions structure terrestrial ecosystems and maintain the proper reciprocal functioning of population dynamics (a phenomenon known as trophic cascades) (Holt 2000; Polis et al. 2000; Allen et al. 2011; Ripple et al. 2016; West et al. 2020). This is because their presence and behaviour encourages biodiversity (Edwards 2014). The possible benefits arising from predator reintroductions include their conservation, the regulation of prey



- 3.10 and engineering the recreation of natural, usually pre-colonial, ecosystems (Tan 2015; West et al. 2020). The latter is an indication of the growing awareness that European influence and interference triggered the decline and extinction of many Australian mammals, either directly or indirectly (Woinarski et al. 2015).
- 3.11 The concept of top-down suppression is a response to evidence that lethal control of apex predators can have “cascading effects” on the wider ecosystem and its inhabitants (Colman et al. 2014). For example, the loss of dingoes can be tied to significant corresponding losses of small and medium-sized native mammals (Rose 2011). This is because many top-order predators have positive impacts on biodiversity due to their “key functional roles in regulating trophic cascades and other ecological processes” (Letnic et al. 2012).

GENERAL CONCERNS

- 3.12 The Draft Plan endorses integrated control of predator species and explains that it is “important for effectively managing the threat of predation while supporting the re-introduction and recovery of populations of native small mammal species”, such as Southern brown bandicoots, Long-nosed potoroos, Eastern quolls, Spotted-tailed quolls, Eastern barred bandicoots and Southern bettongs (PV 2020a).
- 3.13 A range of questions are essential in the planning of such an action. The questions relate to the introduced populations. However, concerns must be mapped against preexisting ecological communities as well (Armstrong et al. 2015). For example, how might the host ecosystem be affected by the introduction? Those that are directly relevant to the introduced populations include:
- 3.13.1 how might the probability or likelihood of establishment be affected by the size of the release group and how is post-release survival and/or dispersal likely to be affected by their pre- and/or post-release management?
 - 3.13.2 what conditions are required for the introduced population to persevere or survive and how might their genetics affect their likely or expected persistence in that environment?

- 3.14 These questions are vital to ensure the success of a reintroduction project (Seddon et al. 2007; Halsey et al. 2015). They are particularly important when that project involves the release of predators.
- 3.15 The development of reintroduction biology only makes sense in an ecosystem enduring thorough damage as a result of a series of interrelated threats, including those cited in s2.1. There would be no need for the reintroduction of species if they had not been eradicated or otherwise removed in the first place. Though intervention has become increasingly common in conservation, it must be tempered with an appreciation and assessment of risk (IUCN 2013). For example, even “small declines” in their populations can lead to “unpredictable and uncontrollable” outcomes (Hayward and Somers 2009).

GENERAL GUIDELINES

- 3.16 A range of guidelines or principles exist concerning proposals to reintroduce or translocate species. These may be international, such as the IUCN’s Reintroduction and Invasive Species Specialist Groups’ Task Force on Moving Plants and Animals for Conservation Purposes, or national, such as the Procedures Statement for Translocation of Threatened Native Vertebrate Fauna in Victoria. The following subsection will briefly outline these as examples we believe have been neglected in the Draft Plan. The importance of these are thereby highlighted. Their absence, or any reference to their existence, is considered to significantly reduce respondents ability to adequately address the proposals provided in the Draft Plan.
- 3.17 The IUCN has developed a series of guidelines intended to inform projects of this kind. It is unclear whether these guidelines have been consulted in the formulation of the Draft Plan. As they were explicitly crafted to “provide guidance on the justification, design and implementation” of any such proposed project, we believe they are an indispensable resource. The guidelines emphasise that they must not be construed as promoting such projects over any other possible action and that any of the elements contained within them “should not be selected in isolation” to provide justification (IUCN 2013). Though we advise that the entirety of the guidelines are considered, several relevant elements contained within the guidelines are provided for consideration below:

- 3.17.1 projects must be intended and designed to produce a measurable and quantifiable conservation benefit at the population, species and ecosystem level and not solely benefit reintroduced or translocated individuals. This is emphasised in projects framed as conservation, such as the project contained within the Draft Plan (IUCN 2013). Based on the information provided in the plan, it appears that the beneficiaries of the reintroduction proposal are intended to be the broader ecological community and the ecosystem they occupy. As such, there must be a corresponding strategy or procedure in place with which the benefits may be quantified;
- 3.17.2 a corresponding guideline maintains that there should be “strong evidence that the threat(s) that caused any previous extinction have been correctly identified and removed or sufficiently reduced”. Further assessments must be made regarding any proposal to properly identify benefits and impacts, including those relating to potential social and economic consequences (IUCN 2013);
- 3.17.3 the document explains that evidence indicates that (re-)introductions can lead to “extreme negative impacts” which can be “difficult to foresee” (IUCN 2013). A range of stakeholders, including those Animal Liberation is ideologically opposed to, have raised concerns suggesting the proposal to reintroduce native predators will likely cause the conflict described above;
- 3.17.4 animal welfare is included in the IUCN guidelines. The relevant provisions maintain that adhere to accepted standards, comply with legislation, regulations and policy. Proposals must also make “every effort [...] to reduce stress or suffering” (IUCN 2013);
- 3.17.5 as per these guidelines, the IUCN advise that in cases where “a high degree of uncertainty remains or it is not possible to assess reliably that a conservation introduction presents low risks, it should not proceed” (IUCN 2013). The following sections of this submission will provide substantial evidence suggesting that the risks in fact outweigh the alleged benefits. In order to meet the requirements briefly outlined in this subsection, it must account for a range of concerns.



3.18 The Victorian Procedure Statement for proposals and projects involving the translocation of native vertebrate fauna has been briefly described elsewhere in this submission. Previous references outline its purpose and legislative basis. The document contains a series of principles which inform the authorisation of any projects proposing the use of this technique (DELWP 2019a). These include:

- 3.18.1 evidence that the project will “promote the protection and conservation” of the species. This may include habitat related risks, such as those stemming from factors which caused the original loss or decline of the species not being sufficiently understood or addressed in the proposal or its design, pressures associated with predation or competition, the transmission of parasites, pathogens or disease, difficulties in locating suitable or sustainable resources at the release site;
- 3.18.2 evidence that the project is likely not to incur adverse impacts upon other ecological communities;
- 3.18.3 evidence that the factors which caused the extinction of the species or otherwise limited their abundance at the site have been “identified and solved or are being actively managed now and into the foreseeable future” (DELWP 2019a).

3.19 In addition to these principles, the Procedure Statement requires that a written proposal containing a comprehensive brief must be submitted and reviewed by the TEP. The submission must include:

- 3.19.1 the number of animals intended to be released;
- 3.19.2 the proposed start date of the project;
- 3.19.3 the source location or captive-breeding facility from which the reintroduced or translocated population will be sourced;
- 3.19.4 a nomination of the nature of the project (i.e., population restoration, introduction, removal, salvage or experiment translocation);
- 3.19.5 a justification for the project, including an outline of how the proposal project is intended to benefit the

- 3.19.5 benefit the species, why they need to be reintroduced or translocated, intended conservation outcomes, research objectives and an assessment of how the project may restrict options for future management of flora and fauna at both the source and release site;
- 3.19.6 a description of the species, including conservation status, historical and current distribution, biology and ecology, a review of any documented recovery actions, an assessment of pressures or threats and details of the source population (i.e., clarification regarding which population has been selected for reintroduction and on what basis);
- 3.19.7 a description of the the host or release location, including a description of habitat, area, current ecological communities, biodiversity values, an environmental risk assessment, current land use, a review of its suitability and any implications involving possible restriction of future land use or management;
- 3.19.8 a description of the translocation or reintroduction, including information on the individuals (i.e., age, sex ratio and whether they are proposed to be released individually, in pairs or in colonies), a literature review of similar projects, risk management strategies, capture methods prior to release, health assessments, transportation procedures and any intentions to sample or store genetic material;
- 3.19.9 a description of management strategies, including monitoring, evaluation, reporting and governance. This must also include a contingency plan created in the event that losses occur or indicators of success are not met;
- 3.19.10 a description of funding sources, resources required and a detailed, long-term budget;
- 3.19.11 a description of any community consultation undertaken, including a detailed list of affected or interested parties, public relations and stakeholder endorsements.

3.20 Under the Procedure Statement, a proposal may also require the following:

- 3.20.1 approval by an Animal Ethics Committee (hereafter, 'AEC');
- 3.20.2 certification of animal health from a qualified veterinarian with experience in treating wildlife.

CONCERNS

- 3.21 There are a range of concerns relating to these guidelines and principles and the proposals contained within the Draft Plan. Briefly, these relate to the historical and contemporary impact of lethal control programs in the decline or decimation of native predators, including the dingo, and corresponding concerns associated with previous and anticipated conflict with agricultural operations bordering the region (Koob 2021). While we disagree with the substance of these claims, insofar as there are a range of alternatives to lethal control carried out in attempts to protect farmed animals, we emphasise the implicit threat and cite this as an example of an extreme negative impact. We caution that this threat may foreseeably lead to the killing of the reintroduced populations, particularly dingoes, should they migrate outside their intended range and thereby become “unprotected” under the Order in Council outlined in section 6. These concerns relate to subsections 3.18.1, 3.18.2, 3.18.3, 3.19.5, 3.19.6, 3.19.7, 3.19.9 and 3.19.11.
- 3.22 Given the range of preexisting threats, including ongoing lethal control using an indiscriminate chemical compound (i.e., sodium fluoroacetate) and substantial ambiguities regarding the protection applicable to the animals pre- dispersal, particularly dingoes should they travel outside the GNP boundaries and onto private property, we believe that the present proposal fails to meet these modest requirements. Rather, the proposal may ultimately lead to unnecessary death and, thereby, failure of its basic objectives (i.e., how its goals will be realised, taking into consideration and providing stratagems for identified or potential threats). These concerns relate to subsections 3.18.1, 3.18.2, 3.18.3, 3.19.5, 3.19.6, 3.19.8 and 3.19.9.

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REINTRODUCTIONS IN AUSTRALIA

The potential value of species reintroductions or translocations outlined in Section 3 has been recognised by the Victorian Government. The concept of reintroduction, specifically reintroducing apex predators in efforts to “create a more appropriate ecological balance”, was referenced in the Government’s Protecting Victoria’s Environment - Biodiversity 2037 plan (DELWP 2017). Elsewhere, the department responsible for its publication also note that translocations and reintroductions represent “an important conservation technique for threatened species”. It does, however, emphasise its limitations and requirements under state law (DELWP 2021a).

**POSITION UNDER EXISTING LEGISLATION, STRATEGY AND POLICY:
REINTRODUCTION OR TRANSLOCATION**

4.1 Victorian government sources cite a range of concerns which inform general provisions against the translocation of native species in state legislation. These provisions are outlined in the subsection 4.4 below and include limits on resources, preexisting ecological community structure and potential direct or indirect threats to preexisting ecological communities. These also relate to the principles contained in the Procedures Statement for Translocation of Threatened Native Vertebrate Fauna in Victoria described in subsection 3.14 above. Other concerns relate to the risk that translocated or reintroduced populations may migrate or become established in areas outside their intended range (DELWP 2021a). The latter is a significant concern relative to the proposal to reintroduce dingoes in the GNP.

4.1.1 The fact that 90% of the property surrounding the site of proposed release is private coupled with the concurrent existence of an Order in Council “unprotecting” them from the provisions contained within state law on private property presents serious problems with the proposal (PV 2003; Smith and Walsh 2013; DELWP 2021b). This concern is amplified by existing state policy identifying the dingo as an unprotected species on private property and that the surrounds are largely outposts of the agricultural sector, suggesting that the challenges cited and concerns raised by nearby operators may be valid (Koob 2021). At the very least, such concerns should be addressed in a manner that minimises or removes the risk that the reintroduced population could face retaliation and thereby significantly diminish the legitimacy of the proposal. For further discussion on this matter, see Section 6 of this submission.

4.2

Due to the concerns cited in subsection 4.1, translocation or reintroduction proposals require expert assessment and authorisation on several levels, as mandated under the Wildlife Act 1975. Where relevant, such authorisations may be issued under the Victorian planning scheme, the National Parks Act 1975 or the Environment Protection and Biodiversity Conservation Act 1999. It is not clear which avenue of authorisation the proposal will take as there is no reference to it in the Draft Plan. As such, comment can only be general. Similarly, as the Draft Plan provides no reference or discussion concerning the requirements to carry out a program involving the reintroduction or translocation of native species, it is not clear whether the proposal requires or intends to obtain approval under an AEC. This necessarily limits the specificity of submission content and invariably impacts upon the validity of the information contained within them, thereby representing a deficiency in the contents of the Draft Plan. Clarification on this point is required in order to provide a detailed and appropriate response.

4.2.1 It is our understanding that the proposal will require a range of approvals and/or permits in addition to those outlined in section 3.

4.2.2 For example, the proposal will require a wildlife research permit. The legislative requirement for such authorisation may fall under the Wildlife Act 1975, the Flora and Fauna Guarantee Act 1988 or the National Parks Act 1975. As described above, some proposals require an AEC approval prior to the issuing of such a permit in order to “ensure consistency” with the objectives of these Acts, the Prevention of Cruelty to Animals Act 1986, its forthcoming superseding instrument, and any other relevant legislation or subordinate regulations, including compliance with all requirements under the Australian Animal Welfare Standards Code of Practice (NHMRC 2013; DELWP 2021c).

4.2.3 The proposal may require a pest animal research permit insofar as dingo-dog hybrids are classified as an “established pest animal” under the Catchment and Land Protection Act 1994 (DJPR 2021). Given the lack of detail provided in the Draft Plan regarding the sourcing of the animals proposed to be reintroduced, the latter remains a valid query until such information is supplied. Similar requirements to those outlined in subsection 4.3.2 exist in obtaining this permit, including those concerning animal welfare (NHMRC 2013).

- 4.3 Regardless of authorisation source, assessments are made by the Threatened Fauna Translocation Evaluation Panel (hereafter, 'TEP') in line with the principles outlined in subsection 3.14. These assessments consider a range of factors, including those outlined above and any probable impacts upon the welfare of the reintroduced or translocated animals, the welfare of these animals at both the source and release sites and whether impacts can be suitably managed (DELWP 2019a; DELWP 2021a). Similar mechanisms are present in equivalent state laws, policy and procedures elsewhere in Australia (ACT Government 2017; DPIE 2019). Though government documents explain that the procedural protocol followed by TEP provide "a clear decision-making and administrative framework for proposals to translocate threatened fauna in Victoria", here is no reference to this procedure in the Draft Plan (DELWP 2019a; PV 2020a).
- 4.4 In addition to the factors described in the subsection above, the IUCN has produced a comprehensive guideline informing the acceptability of proposals involving the reintroduction or translocation of species. The relevant elements of this document, as well as those contained within the Victorian regulatory framework outlined above, have been discussed in further detail in section 3 (see subsection 3.13).
- 4.5 Despite maintaining that the contents of the Draft Plan are in accordance with all provisions of relevant state and national legislation, the legal requirements and auxiliary regulatory mechanisms governing the reintroduction or translocation of native species is not discussed. These are outlined in subsection 3.19 above. As such, the concerns stipulated in government policy are not adequately addressed and do not provide respondents to its Draft Plan with sufficient information with which to offer an informed response. A recommendation to do so is provided in the executive summary section of this submission.

**POSITION UNDER EXISTING LEGISLATION, STRATEGY AND POLICY:
NATIVE SPECIES PROTECTION UNDER LAW AND CONVENTION**

- 4.6 Many of the species proposed to be reintroduced or translocated in the Draft Plan have corresponding National Recovery Plans (hereafter, 'NRPs'). These NRPs are referenced in decisions concerning proposed reintroduction under the Wildlife Act and the Procedure Statement described in subsection 4.6. The spotted-tail quoll, for example, has a NRP prepared by the Victorian government and published by the precursor to the Commonwealth Department Agriculture, Water and the Environment. At the time the NRP was published, the department did not anticipate translocation to "play a role in the recovery of the species" yet endorsed the maintenance and management of captive populations this technique become necessary (DE 2016).



4.7 Other species proposed to be reintroduced in the GNP do not have NRPs, despite international recognition of their conservation status. For example, the dingo does not have an NRP despite being listed as vulnerable in the IUCN's Red List of Threatened Species since 2008 (Kearney et al. 2019). The Victorian government has created an Action Statement under the Flora and Fauna Guarantee Act 1988 for the dingo, however. This document, prepared by the precursor to DELWP, contains descriptions of threats, their sources, past and current management actions, their targets, objectives, actions and the responsible agents or authorities (Robley 2013). Independent studies have identified lethal control, including poison baiting, as a pressing threat to dingo populations across the country (Kearney et al. 2019). The suite of impacts this engenders include pack destabilisation, increased hybridisation and, paradoxical to the stated intent of such programs, increased population sizes (Corbett 1988; Thomson 1992; Fleming et al. 2006; Glen et al. 2007; Wallach et al. 2009; Glen 2010; Wallach et al. 2010).

4.7.1 The objective contained within the Action Statement of particular relevance to this submission is the increase or maintenance of viable dingo populations in the wild. The corresponding action framework for this objective include monitoring and assessment of the feasibility of projects involving "the supplementation of existing dingo populations in high conservation areas". The Statement cites a series of considerations regarding this action. These include risk assessments, such as potential impacts on other species, surrounding landholders, livestock and possible vectors of disease transmission or transfer. It specifically precludes projects with propose population supplementation in agricultural areas or in areas "where wild dog management is planned or being conducted" (Robley 2013). In other jurisdictions, lethal control is not undertaken if there are applicable provisions in state law imposing legislated protection on species at potential risk. For example, fox control has historically been limited in the Northern Territory "due to the difficulties imposed by the protection of dingoes" in that state (Norris et al. 2005).

4.8 Though the dingo is not currently provided with protection under any other international conventions, the designation of a species as vulnerable in the IUCN Red List is used to guide revisions to other important international agreements, including the Convention on the International Trades in Endangered Species (CITES) (IUCN 2021). The system has guided conservation efforts for over 50 years and is considered the most widely recognised and comprehensive resource available for assessing global conservation status (Rodrigues et al. 2006; Tomasini 2018; Betts et al. 2019).

4.9 Despite consensus on its value and importance, in practice the act of listing a species does not translate into protection. This is amply shown by the current status of the dingo in Australia. While studies cite Australia's legislative and policy structure regarding conservation as "robust", the presence of significant loopholes in laws intended to protect species, including those internationally recognised as vulnerable, is an indication that this may not be the case (Allen et al. 2017). Rather, such protection appears to be differentially applied and malleable to the perception of a specific species. This appears to be the case with the ambiguous and contradictory nature of protections afforded to dingoes in Australia (Hyttén 2009).

**POSITION UNDER EXISTING LEGISLATION, STRATEGY AND POLICY:
INTERACTION WITH RELEVANT MANAGEMENT POLICIES IN THE GNP**

4.10 One of the six (6) "key threats" identified in the CAP briefly outlined in s2.19 is "predation by foxes and cats". According to the CAP, predation by foxes and cats "poses an extreme risk to a range of assets" across the GGL insofar as it has allegedly "contributed to the decline in the health of a range of conservation assets". However, the CAP acknowledges that "little is known about the abundance of cats" in the GGL, including the GNP. Similarly, little is known regarding "their response to long-term landscape-scale poison baiting of foxes". It cites programs conducted elsewhere which indicate that "controlling a single predator species [has] resulted in an increase in other predator species" (PV 2019b).

4.11 The corresponding strategy advocated by the CAP is landscape scale management, including broad-scale poison baiting in combination with other conventional control techniques, such as trapping. The threat objective identified in the CAP is a reduction in fox and cat predation "at the landscape scale" by 2023. The rationale for this objective is the support of several threatened native mammal populations contained within the GGL, including the Brush-tailed Rock-wallaby, the Long-nosed Potoroo, the Southern brown bandicoot, the Smoky mouse and the Spotted-tailed quoll (PV 2019b). A number of these species, in addition to species who once occurred yet are no longer identified in the GNP, such as the Eastern Quoll and the Dingo, are susceptible to the principal strategy identified in the CAP (PV 2019b; PV2020a). A number of these species, including Dingoes, Spotted-tailed and Eastern quolls are proposed to be reintroduced in the GNP in the Draft Plan (PV2020a).

4.12 Similar assessments and objectives are contained within the Draft Plan. For example, it identifies predation by foxes and cats as "a key threat to the ecosystems of the Gariwerd". It cites the CAP as its source material for this conclusion. The Draft Plan contains an

- 4.12 update to the CAP insofar as it claims that “monitoring data from the Grampians indicates feral cats are now as abundant in the Grampians as Red Fox”. It maintains that the increase in cat numbers in the GNP is “likely a response to long-term, landscape-scale poison baiting of foxes”. It reproduces the citations of other programs which indicate the control of one species can lead to population increases of others (i.e., broad-scale baiting of foxes has allegedly lead to population spikes in cats) (PV 2020a).

REVIEW OF REINTRODUCTIONS AND TRANSLOCATIONS IN AUSTRALIA

- 4.13 Reintroductions have a long history in conservation and can be traced as far back as the 1880s in Australia, though the majority took place in the previous 30-35 years (Enochs 1997; Short 2009). Reintroductions carried out in Australia have principally been cases of small native mammals. For example, captive-bred Eastern barred bandicoots has been reintroduced in a number of areas in Victoria since the late 1980s. Three of these populations survived the process while at least five did not, despite at least one of these sites being bordered by electric fencing (Hill et al. 2010). Between 2008 and 2012 a total of 39 brush-tailed rock-wallabies were reintroduced into the Moora Moora Creek region of the GNP (PV 2006; Molyneux et al. 2011; Taggart et al. 2016). In total, 18% of the reintroduced animals survived with only 15% of mortalities tied to predation within the first 100 days (DSE 2012).
- 4.14 Few projects have attempted to reintroduce threatened native predators (West et al. 2020). In Australia, it has primarily been applied to the Tasmanian devil (*Sarcophilus harrisii*) with a range of outcomes and troubling limitations (Department of Primary Industries, Parks, Water and Environment 2010; Rogers et al. 2016; Farquharson et al. 2017). Generally, many more involve the release of native herbivorous species in enclosed conservation reserves where barriers provide protection from predation, interference or alteration (Legge et al. 2018). Such projects boast a significantly higher success rate when compared to those in which animals are released into unprotected (unenclosed) areas (Dickman 2012). Many of these programs involve extensive control of predators prior to captive release (Tan 2015; EnviroKey 2017). Similar projects exist elsewhere in the world (Burns et al. 2012). Worldwide, predator reintroductions in enclosed areas is rare due to concerns surrounding their threat to other species within the enclosure, whether the reserves provide sufficient resources to sustain a fledgling population and difficulties in containing and monitoring them (West et al. 2020).
- 4.15 Studies assessing the efficacy of these programs have highlighted the “high variability in the species’ response to management” (Soderquist 2011). Given the historical interest in the

- 4.15 reintroduction of native mammals in the GNP, it is important to consider the impact the proposal to reintroduce predators may have upon these projects. Critically, this must include non-lethal impacts of predation, such as prey behaviour, foraging, reproduction and physiology (Pickett et al 2005).
- 4.16 As the plan proposes the release of several carnivorous native species, including the Quoll and the Dingo, it is important to briefly review previous projects. The release of spotted-tail and eastern quolls is described within the Draft Plan as providing “the only opportunity for the recovery of both species” within the GGL (PV 2020a). These projects represent the reinforcement variant of the population restoration strategy insofar as the animals released are intended to “enhance population viability” (IUCN 2013). Such programs are referred to as “reinforcement/ supplementation” in the Procedure Statement for Translocation of Threatened Native Fauna in Victoria (DELWP 2019a).
- 4.16.1 Examples of this include the Western quoll program in the Flinders Ranges, a region the species had populated for centuries prior to European settlement (Stevens 2018; Landscape South Australia 2020). This project facilitated the translocation of 40 individuals as part of an “insurance population” (DAWE 2015). Such a concept is intended to “provide an insurance against extinction and/or a stock for reintroduction or reinforcement efforts” (Leus 2011). The Flinders Ranges quoll project involved the concurrent application of “large-scale cat baiting and control strategies” (Stevens 2018). In each way this project aligns with the proposal in the Draft Plan to reintroduce native predators to the GNP. It too will involve broad-scale baiting and mechanisms to “create insurance populations” (PV 2020a).
- 4.17 Of particular concern is the concurrent application of lethal control techniques in attempts to protect translocated or reintroduced populations from predation. A general example of this is provided in subsection 4.16.1. Further discussion of this is provided in section 6 of this submission.

AN ARK WITH TEETH: PLANS TO REINTRODUCE DINGOES IN THE GNP

- 4.18 Dingoes are considered to be native animals in several pieces of State legislation. However, others claim that they are “technically feral animals by definition” insofar as they are “the wild-living descendants of a domesticated animal” (Fleming et al 2012). The ambiguous status of the dingo in state legislation is exemplified by the Order in Council which unprotects the species from the provisions of the Wildlife Act on specified lands. Despite this, they



- 4.18 have been widely recognised as “an ecologically significant species” (Johnson 2006). The following section will outline the rationale behind the proposed reintroduction of the dingo in the GNP and provide a series of informed considerations. Practical recommendations are outlined in the executive summary section at the beginning of this submission.
- 4.19 In line with the theory and available evidence outlined above, the Draft Plan maintains that “the role of native predators and how they can be supported to recover is a gap in our current understanding”. The proposal to reintroduce dingoes represents an organised effort to expand knowledge in order to “support the ongoing effective management of predation pressure by both introduced and native predators” (PV 2020a). The proposal to engineer a viable dingo population in the GNP thereby represents the reintroduction variant of a population restoration strategy (IUCN 2013).
- 4.20 The rationale for reintroducing dingoes to GNP is based on the top-down suppression theory of carnivore interaction and the role of top-order predators in providing ecological balance and sustainable population dynamics (Baum and Worm 2009; Nimmo et al. 2015; Crabtree 2020; Eishold 2020). Similarly, it is based upon emerging evidence that the presence of dingoes plays an important role in the retention of threatened fauna and the biological control of subordinate, often introduced, predator species (Fleming et al. 2012). Examples of the latter include the expansion and increased abundance of coyotes following the ecological extinction of wolves in the American west and, conversely, the reduction of mesopredators following the restoration of Iberian lynx in a Mediterranean ecosystem (Ripple et al. 2013; Jiménez et al. 2019). There is some evidence to suggest similar outcomes are tied to widespread and ongoing lethal dingo management (Nimmo et al. 2015). This has led some to promote their reintroduction (Glen et al. 2007). For these reasons, the dingo has been described as one of the “most effective” biological control agents for foxes and cats (Johnson 2006).
- 4.21 A range of important considerations are at play here. Direct and indirect human activity has had a major impact on dingo populations across Australia (Fleming et al. 2001). The removal or reintroduction of predators either to or from an ecosystem can impact other species in ways which are difficult to anticipate and thus effectively or appropriately manage (Glen and Dickman 2005). This corresponds with the IUCN guidelines, particularly subsection 3.13.5, and is substantiated by evidence indicating that though significant disadvantages exist upon the colonisation of an ecosystem by a predator species, native animals have been shown to be capable of coexisting with introduced predators in some conditions. For example, historical evidence suggest that the dingo caused few or no extinctions upon initial arrival, many

- 4.21 native mammalian species on mainland Australia coexisted with cats for a century and wild canids were considered a threat to the Tasmanian sheep industry yet caused no extinctions during the nineteenth century (Johnson 2006). The value and ecological importance of apex predators in this process is instructive.
- 4.22 Large carnivores are often but not always apex predators (Edwards 2014). They are usually rare in natural ecosystems (Hayward and Somers 2009). The natural scarcity of top order predators, including the dingo, amplifies the need to provide and enforce their protection. Though “few species of Australian wildlife have as ambiguous an identity as dingoes”, they are widely accepted as Australia’s terrestrial apex predator (Hayward and Somers 2009; Hytten 2009; Brawata 2012; Shroeder et al. 2015). This acceptance has increased since the extinction of the Thylacine as evidence has mounted indicating dingoes have assumed a role in which they occupy a “significant ecology niche” (Hytten 2009). The role of the dingo as an apex or top-order predator was widely known by Indigenous Australians who were aware that they were an essential ecological actor maintaining “the balance of nature” (Purcell 2010a).
- 4.23 Dingoes can also be considered a keystone species. Though it has often been poorly defined and broadly applied since being coined in 1969, the concept of a keystone species is usually defined as a single species whose presence in an environment greatly influences and modifies the activities, behaviour, composition and stability of that ecosystem (Mills et al. 1993; Zhao-hua et al. 2001). It helps conceptualise the complexity of ecosystem interactions and the inherent dependency of the entire ecological community on certain species which are “critical to its stability” (Cristancho and Vining 2004). As such, keystone species have “disproportionate importance in their [ecological] community” (Mouquet et al. 2013). Due to the ecological importance of the dingo, they have been identified as a keystone species in Australia (Johnson et al. 2007; Dickman et al. 2009; Letnic et al. 2009a; Purcell 2010b; Wallach et al. 2010).
- 4.24 It is heartening that authorities are beginning to recognise the ecological value of conserving predators. The proposal to reintroduce several native predators is an example of such recognition. This is particularly important regarding the proposal to reintroduce the dingo, given the historical persecution and widespread control the species has encountered since colonisation (Glen and Short 2000).
- 4.25 Despite this progression, however, the proposal triggers a range of serious concerns we believe must be transparently and pro-actively accounted for prior to the release of any subsequent management plan. The following section will outline the rationale for the proposal, focusing on the dingo for the reasons provided above.

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**RATIONALES FOR REINTRODUCING
PREDATORS IN THE GNP**

There are a range of rationales informing the proposal to reintroduce predators in the GNP. These include an undergirding desire to restore species to their natural ranges whilst re-creating a functional, sustainable and healthy ecosystem. The following section will outline those rationales of particular relevance to the present submission. This will be followed by a brief discussion of associated concerns. Finally, a series of modest recommendations relating to these concerns and the broader submission will be provided for consideration.

CONTROL OF INTRODUCED SPECIES IDENTIFIED IN THE REGION

5.1 There is evidence suggesting that apex predators can suppress smaller “meso-predators” (smaller predators which sit below the peak of the food chain) (Prugh et al. 2009). They may do so directly, through active hunting/predation and associated reductions in population abundance, or indirectly, through increased competition for resources or behavioural changes in prey species (Wysong 2016; West et al. 2017; Banks et al. 2018; Ross et al. 2019). This is described in the Draft Plan as an “innovative” way in which “missing ecological processes” can be “restored” whilst simultaneously managing population levels through engineered trophic cascades (PV 2020a). This corresponds with evidence suggesting that native predators, particularly dingoes, can be “far more effective ecologically and economically” than conventional control methods, such as poisoning (Ritchie et al. 2012).

5.1.1 Mesopredator release describes an increase in the abundance of lesser predators following the removal of a dominant predator who had previously held the subordinate in check (Glen and Dickman 2004). It constitutes one component of a larger trophic cascade (Prugh et al. 2009). The latter refers to the process by which predators suppress herbivores and thereby facilitate the wider health of an ecosystem, including the thriving of plants as predation releasing those herbivores previously preyed upon by mesopredators (Strong et al. 2010). Since the 1980s, the concept has become a central theme in ecology (Ripple et al. 2016). The interactions it describes can have dramatic and far reaching impacts (Newsome and Ripple 2015). The corresponding mesopredator release hypothesis (MRH) predicts that the diminished abundance of top-order predators leads to an increase in the

- 5.1.1 abundance of smaller predators due to a decrease in intra-guild predation and resource competition (Letnic and Dworjanyn 2011).
- 5.1.2 Predators can impact prey species and their abundance in a number of ways. For example, they may impact abundance via direct killing or non-consumptive effects which arise in response to perceived predation risks. However, evidence suggests that suppression of a mesopredator by an apex predator can have positive effects on the abundance of the latter (Gordon et al. 2015). There is some evidence to suggest that preserving larger predators in urban ecosystems can provide smaller species with protection via mesopredator release (Magle 2019).
- 5.1.3 Interest in engineering mesopredator release via predator reintroductions are based on growing concerns regarding the links between mesopredators and the collapse of prey species (Nishijima et al. 2014). Species within the “critical weight-range” of between 35g and 5.5kg are thought to be those most adversely impacted by introduced mesopredators in Australia (Nimmo et al. 2015). This has been shown in relation to cat and fox abundance (Brawata 2012). Further, a decrease in critical-weight mammals has been noted in regions where dingoes numbers are low or absent (Letnic et al. 2009a; Letnic et al. 2009b; Newsome et al. 2001).
- 5.1.4 Despite this, there are a range of potential repercussions associated with an engineered case of mesopredator release. For example, some studies suggest that up to 94% of species can be predicted to be threatened by dingo predation “regardless of any effect” they may have on targeted mesopredators (Allen and Fleming 2012). Though these are not focused upon in this submission, this is not an indication that such concerns may not apply.

5.2 The biological control (hereafter, 'biocontrol') of introduced exotic species by exploiting the nature of co-evolved natural enemies has historically been considered a innocuous, cost-effective and environmentally friendly tool in biodiversity management (Messing and Wright 2006; Nundloll et al. 2009). Generally, it refers to an approach intended to reduce populations of organisms perceived to be harmful via the use of natural enemies (Smith and Capinera 2000). Though it is often associated with the use of pesticides to control the spread of plants and insects or the production and release of biological agents, biocontrol also refers to a technique wherein introduced or otherwise unwanted fauna are controlled by releasing their natural enemies (Moodie 1995; Symondson et al. 2002; Van Driesche et al.

- 5.2 2010; Morin et al. 2014). A controversial example of the latter is the so-called “death-row dingoes” released on a far-north Queensland island in July 2016 (Probyn-Rapsey and Lennox 2020). The significant public uproar following the release of information pertaining to this project offers an insight into public opinion and interest in such projects (Ballard and Fleming 2016; Schwartz 2016).
- 5.3 Biocontrol represents an alternative to conventional control methodologies (Howard 1967). Despite being regarded as a cost-effective technique insofar as conventional methods, such as poisons, require repeated reapplication, many biocontrol programs have become infamous after failing to meet their objectives or resulting in substantially more problems (Tomberlin 2003; Morin et al. 2014). The most notorious example of this in Australia is the introduction of the cane-toad (Hyatt and Robinson 2004; Shanmuganathan et al. 2009).
- 5.3.1 Otherwise known as the enemy release or antagonist hypothesis, the premise of introducing species to reduce the impacts of others is based on the theory that exotic species proliferate in instances where the host ecosystem lacks natural enemies (Colautti et al. 2004; Schulz et al. 2019). Despite the apparent simplicity of the concept, numerous examples indicate that such projects can have adverse impacts on non-target native species (Simberloff and Stiling 1996).
- 5.4 As outlined elsewhere in this submission, the Draft Plan and the relevant CAP contain references to strategies concerning introduced wildlife. These principally relate to fox and/or cat predation on several native Australian species, notably the Brush-tailed Rock-wallaby, the Long-nosed potoroos, the Southern brown bandicoot, the Smoky mouse, the Southern Bettong, the Eastern quoll and the Spotted-tailed quoll. One of the goals described in section 2 relates to this. It includes five (5) strategies, four (4) of which are prioritised as requiring immediate action. The first of these strategies is the launch of “landscape-scale fox and feral cat baiting programs” to be carried out in coordination with landholders and Landcare groups. The second strategy suggests that the reintroduction proposal may not be enacted until the suppression of these species densities has occurred (“aim to suppress fox and feral cat densities to the level where translocations can occur to restore native wildlife species across the landscape”).

THE PRESENCE OF INTRODUCED PREDATORS IN THE REGION

- 5.5 The presence of introduced exotic predators in the GNP represents a rationale for the release of native predators as biocontrol agents. Some of these, such as the red fox and the cat, have been an alleged cause of mammal decline and extinction in Australia (Short and Smith 1994; Dexter and Murray 2009; Woinarski et al. 2015). Each of these so-called “fugitive species” were deliberately introduced by European colonists as hunting fodder and companion, respectively (Horner and Platt 1993; Newsome 1995; AV 2020b; AV 2020c). Such species are generally considered to pose “novel and exaggerated impacts” due to their relatively recent arrival in Australian ecosystems and the corresponding fact that native mammals did not evolve in sympatry.
- 5.5.1 Significant efforts have been made to eradicate the fox from Victoria, including the GNP (see 4.1-14). In 2018, the Victorian Government indicated that it would “officially move to declare cats as pest animals on public land” and would thereby introduce management measures (Stevens 2018). The same year, the “feral cat” was declared an established pest animal in Victoria (DELWP 2021b). The fox has been a declared “pest” species across Australia, including Victoria, for many decades. The Grampians Ark, a “conservation program” led by Parks Victoria, targets foxes and cats in GNP (Price 2020). See section 4 for more.
- 5.5.2 Studies have indicated that the rarity of native predators, notably the dingo, influenced these species ability to occupy a predatory niche (Johnson et al. 2007). Aside from direct impacts upon these populations, the presence of dingoes, for example, can trigger changes which ultimately influence the abundance and structure of species in the host ecosystem. This can have impacts on vegetation as plant communities are influenced by the changing ecosystem structure (Letnic et al. 2012). Furthermore, dingoes are generalist predators.
- 5.6 In 2018, the Victorian Government indicated that it would “officially move to declare cats as pest animals on public land” and would thereby introduce cat management measures (Stevens 2018). The same year, the Department of Environment, Land, Water and Planning launched a community consultation on declaring the “feral” cat an established pest animal. The consultation received over 1,000 submissions of which more than 75% supported the declaration (DELWP 2018). Since July 2018, wild or “feral” cats are a declared established “pest” animal on specified Victorian Crown land under the Catchment and Land Protection Act 1994 (AV 2020c).



- 5.7 These conclusions appear to be motivating factors informing the plan to reintroduce predators, particularly the dingo, in the GNP. Many associated considerations are not included or adequately discussed in the Draft Plan. For instance, Parks Victoria have previously maintained that “the affect of natural predators” no longer present in the region in conjunction with ongoing fox baiting programs on native mammals is “unknown” (PV 2006).

CONTROL OF INTRODUCED SPECIES IDENTIFIED IN THE REGION

A ROLE FOR DINGOES?

- 5.8 There is significant evidence for intraguild predation of cats by dingoes across the country. For example, cat remains have been found in dingo scats and stomachs in both arid and semi-arid areas, in the tropical north and in eastern forests (Newsome et al. 1983; Lunney et al. 1990; Marsack and Campbell 1990; Thomson 1992; Lundie- Jenkins et al. 1993; Corbett 1995b; Glen and Dickman 2008; Pavey et al. 2008; Cupples et al. 2011; Allen et al. 2012; Allen and Leung 2012; Pascoe et al. 2012). Some records indicate that cats can form up to 10% of sampled dingo diets (Lundie- Jenkins et al. 1993; Paltridge 2002). Others provide evidence that dingoes will kill cats yet not consume them, suggesting that interference competition not food acquisition is the primary motive in some cases (Polis et al. 1989; Sunde et al. 1999; Moseby et al. 2012).
- 5.9 Dingoes play an important role in naturally controlling mesopredator populations. They allow few other predators in their territories (Rose 2011). Available evidence concerning the viability and efficacy of using the dingo as a tool for conservation management can be contradictory, however. Some have questioned whether the benefits a coordinated predator release or reintroduction would lead to the intended outcome (i.e., the eradication of other unwanted animals, such as cats or foxes) (Hayward and Marlow 2014). Others have argued that the evidence suggests that dingoes kill meso-predators, such as cats and foxes, opportunistically and that this can “enhance populations of native species” (Schroeder et al. 2015; Nimmo et al. 2015).
- 5.10 Arguments that because dingoes cannot eradicate these species and therefore their value is limited are problematic (Hayward and Marlow 2014; Nimmo et al. 2015). For example, many control or management techniques targeting mesopredators within the GNP are acknowledged by their practitioners as not likely to lead to their eradication. 1080 baiting, for instance, will not result in complete removal of a population. This is why such programs are often described as carried out in conjunction with other conventional control methods in an “integrated” manner.

- 5.11 In addition, there is evidence that suppression rather than eradication of introduced mesopredators can be beneficial to critical weight-range animals. For instance, a study in East Gippsland found that the total abundance of all mammals increased when fox numbers were suppressed rather than eradicated (Dexter and Murray 2009). There are a number of other cases which draw the same conclusion (Claridge et al. 2010; Kovacs et al. 2012; Robley et al. 2014). This supports findings that thresholds of population density exist wherein natives can absorb the impacts of introduced predators (Sinclair et al. 1998; Johnson 2006).
- 5.12 There is current and emerging evidence suggesting that the presence of intact dingo populations offer net benefits to the broader ecosystem. This appears to be a guiding rationale behind the proposal contained within the Draft Plan. However, there are several serious concerns not discussed. These are outlined in the following and final sections of this submission.

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POTENTIAL PROBLEMS

As referenced throughout the previous sections of this submission, Animal Liberation has a number of significant concerns relating to the current incarnation of the Draft Plan.

LETHAL CONTROL IN THE VICINITY AND SURROUNDS

6.1 The lethal control of vertebrate predators is one of the most prevalent forms of wildlife management worldwide (Holt et al. 2008). The form this takes varies. Of particular concern regarding the proposed reintroduction of native predators in the GNP is the ongoing use of poison, particularly in the control of introduced wildlife populations present in the region. This applies to both government and private control programs. The latter is particularly relevant given the removal of the legislated protection afforded to the dingo under the Flora and Fauna Guarantee Act 1988 and the Wildlife Act 1975 as per the Order in Council permitting their killing on private land. As 90% of the land adjoining the GNP is private, the risk is emphasised (PV 2003). The reasons for this are provided in the following subsection.

6.1.1 The area and its surrounds has and will likely continue to be baited using 1080 poison. These programs have been targeted at foxes in the past. In a single year, for example, the estimated area covered by fox control programs in the GNP exceeds 70,000ha (Robley et al. 2008). Following the 2018 declaration of cats as “pest animals” on public land in Victoria, it is reasonable to expect programs involving the application of poison targeting this species will be conducted also (DELWP 2018; Stevens 2018). For example, in July 2020 Parks Victoria announced that the Grampians Ark program, described below, would extend its target to include cats (PV 2020b).

6.1.2 The use of sodium (mono-)fluoroacetate (“1080”) in the GNP and its surrounds poses serious problems. These extend beyond the inhumane nature of the death it produces, though this has led a number of parties to urge the development of more humane, target-specific and effective methods to replace its use (Sherley 2007). Some of these are drawn from evidenced conclusions indicating its long-term

6.1.2 inefficiencies. For example, the Invasive Species Council recommends research into “effective replacements for 1080” as “a high priority” (Booth 2020). Due to its primary use as a lethal form of population control, principally targeting introduced wildlife or perceived threats to biodiversity or agricultural operations, others have investigated harnessing the natural propensities of predators or other naturally protective species as agents of asset security (van Bommel 2013; van Eeden et al. 2017; Wallach et al. 2017). The development of alternatives, such as the deployment of livestock guardian animals (‘LGAs’), are responses to evidence suggesting that lethal control is ineffective at limiting the impact or populations of target species (Doherty and Ritchie 2017).

6.2 As described elsewhere in this submission, the Draft Plan contains proposals to release or reintroduce a range of native animals, including eastern quolls, spot-tailed quolls, southern bettongs, eastern barred bandicoots and dingoes (Preiss 2020). Many of these have been shown to be seriously impacted by 1080 baiting programs. Given the proposed reintroduction of native carnivores and the presence of poison baiting programs utilising meat-based baits (i.e., those used to target foxes) or novel techniques utilising devices to eject toxins on the target animal, such programs present a significant risk to the appropriateness and validity of the proposal under the terms and principles of the guidelines cited in s3.13 of this submission.

6.2.1 Sodium (mono-)fluoroacetate, more commonly known as Compound 1080 or “ten-eighty” is a chemical used to kill wildlife across Australia. Though fluoroacetate itself is not toxic, it undergoes a “lethal synthesis” to which there is no known antidote (McCranor et al. 2019).

6.2.2 1080 fatally interferes with the body by starving calcium and energy from cells. It inhibits the proper functioning of the citric acid cycle, a central metabolic pathway used by animals, plants and even some bacteria. This cycle is the final mechanism the body uses to convert food to energy (Costa 2008).

6.2.3 Despite claims that it is target-specific, it is frequently ingested by and kills non-target animals. This includes native Australian animals. Canids are the most susceptible species to 1080 poisoning, though it is toxic to all aerobic lifeforms (Queensland Government 2019).

6.2.4 As early as 1972, many applications using 1080 were cancelled due to "mortalities that were reported on non-target animals" (Balcomb et al. 1983). Studies explained that other techniques were preferable due to these impacts (Bell 1972). Others have cited the development of lesions and reproductive issues resulting from sublethal doses and the deaths of pouch young following non-lethal ingestions (Balcomb et al. 1983; Philip 2020). Secondary poisoning may also be fatal (Eason et al. 2013). Each of these presents significant problems with the proposal to reintroduce predators in the GNP and the existence of ongoing 1080 baiting programs in the vicinity.

6.2.5 Studies have concluded that baiting programs using 1080 could impact upon native carnivores (Hughes et al. 2012). Others have indicated that "consumption of a single fox bait containing 3mg 1080 may be lethal to five native animals, three native birds and the domestic cat (*Felis catus*) and dog (*Canis familiaris*)" (Mallick et al. 2016). Others have linked the local extinction of tiger quoll populations directly to 1080 baiting programs (Belcher 2004). Studies assessing the mortality rates of quolls who consume 1080 baits have been hampered by low uptake, leading to ambiguous conclusions.

6.2.6 Eutherian carnivores have been shown to be more sensitive to 1080 poison than marsupial carnivores (McIlroy 1981). In Australia, eutherian species are represented by a suite of species. In the present context, these are widely regarded as introduced carnivores (principally, *Canidae* and *Felidae*). The historical circumstances which led to the relative absence of eutherian animals in Australia have been tied to its isolated geography and the subsequent evolutionary trend towards marsupials (Keast 1968; Meredith et al. 2008; Sánchez-Villagra 2013). The remainder of this subsection will outline concerns associated with the species proposed for reintroduction or translocation in the GNP.

6.3 The following subsections provide preliminary information concerning two (2) species listed in the Draft Plan as possible reintroductions.



MEAT BAITS PREPARED FOR INJECTION WITH 1080 POISON
PHOTO: ELIZA WOOD (ABC NEWS)

DINGOES

- 6.4 Though the dingo is legitimately considered native as per the provisions recognising them as a threatened species in Victoria under the Flora and Fauna Guarantee Act 1988 and their subsequent listing as threatened and protected under the Wildlife Act 1975, they were among the first species targeted with lethal control in a strategic manner (Glen and Short 2000). There remain significant limitations on the legislated protection of dingoes across Australia, however. This is particularly evident in Victoria. See section 4 of this submission for an outline of these.
- 6.5 The dingo Action Statement developed under the Flora and Fauna Guarantee Act 1988 by the precursor to DELWP in 2013 cites poison baiting as a threat to dingoes in Victoria (Robley 2013). Recent studies have shown that dingoes have been targeted with 1080 poisoning for many decades (Philip 2020). Under much Australian policy, the dingo is included in the definition of “wild dog” despite strong genetic evidence suggesting that they comprised distinct subspecies (Smith et al. 2019). Studies have criticised state government policy which permits or promotes their widespread killing as being “based on an incomplete understanding” of their evolutionary history (Ballard and Wilson 2019). Regardless of the assigned taxonomic identity and status of the dingo, we maintain that the use of 1080 represents one of the most pressing animal welfare issues in Australia.
- 6.6 Field studies have shown that a minority of baits intended for dingoes or “wild dogs” are taken by the species (Kreplins et al. 2018). Recent evidence suggests that dingoes have increased in size by up to 9% over the past 80 years exclusively in areas where baiting is applied. The conclusion reached for this size increase is that those who survive the baiting have less competition for resources (Letnic and Crowther 2020). This corresponds with data indicating that in areas where dingo numbers are suppressed, the population levels of other species increase (Nimmo et al. 2015). Despite this, the absence of preliminary assessments as required under the provisions mandating reintroductions under Victorian law provides no insight with which to accurately comment on this element of the Draft Plan.
- 6.7 The known susceptibility of dingoes to 1080 poison predicate the cessation of such programs within the GNP. To do otherwise severely undercuts the appropriateness and acceptability of the proposal under the principles of the Procedure Statement outlined in Section 3 of this submission. Concerns associated with this are duly described in this section. Similarly, potential impacts on pre-existing ecological communities, such as prey species, is an associated concern.

QUOLLS

- 6.8 Subsection 2 outlined the existence of a range of threats posed to native species during and after 1080 baiting programs. The following subsection will briefly outline those applicable to a second species proposed for reintroduction in the GNP: the quoll.
- 6.9 The first study which attempted to “measure the actual impact of 1080 fox baiting on wild tiger quoll populations” concluded that “the question of whether quolls can survive bait consumption was not resolved” by the corresponding field experiment (Körtner and Gresser 2002). Studies conducted since have acknowledged that “quolls occasionally die of 1080 poisoning” (Körtner and Watson 2005). However, many of these studies are designed to assess impacts of direct bait uptake. That is, whether or not quolls consume and eat 1080-laced baits directly.
- 6.10 As 1080 has prolonged toxicity post-ingestion, it poses secondary threats to animals who consume the carcasses of the original victim. This risk may extend to animals who consume the carcasses of sub lethally poisoned victims (Eason et al. 1996). For example, poisoned carcasses can pose a lethal threat to canids “even up to 75 days after the control operation” while residues can remain in bone for over 200 days (Eason et al. 2012). This presents significant and ongoing problems with the proposal insofar as the reintroduced population may consume the carcasses of previously poisoned animals and die as a direct result or suffer cumulative impacts of the kind described above.

LETHAL CONTROL AS AN ASSISTIVE MEASURE IN REINTRODUCTION PROGRAMS

- 6.11 The perceived necessity to augment reintroduction programs with broad-scale lethal control targeting potential threats, particularly those associated with predation by introduced wildlife, is common (Short et al. 1992; Dickman 1996a; Dickman 1996b; Moseby et al. 2011; Bannister et al. 2016). Though some novel techniques, such as the implantation of implants containing toxins into the bodies of small native mammals, have been trialled, often these involve the broad-scale application of poison (Winter 2017). However, it is important to emphasise that the trials described here involved some of the species proposed for reintroduction in the GNP. The implants inserted into spotted-tailed quolls, for example, contained sodium fluoroacetate (1080). Under the state and international guidelines and principles described in section 3, it is important to emphasise that such an experimental program should not be trialled in conjunction with the reintroduction proposals outlined in the Draft Plan.

6.12 The following are offered as examples of this in the context of Australian reintroduction programs. They are not intended to comprise a comprehensive review. Rather, they are offered as examples of a broader trend:

6.12.1 The brush-tailed rock-wallaby reintroduction program carried out in the Moora Moora Creek region of the GNP between 2008 and 2012, described in s4.8 above, was the culmination of a captive breeding program commenced in 1996 under the National Recovery Program (Males n.d.). Part of the National Recovery Program's Recovery Action points is "control introduced animals", including predators and competitors. As such, the reintroduction of brush-tailed rock-wallabies was assisted by increased regional control programs targeting foxes and cats in the GNP (Price 2020).

6.12.2 The subsequent study reviewing the program stated that "predator control measures at the landscape scale" should be implemented in any subsequent release programs as fox predation was suggested as the main factor hindering population establishment, despite evidence indicating that only 15% of mortalities were associated with predation within the first 100 days and only 18% of the animals released survived (DSE 2012; Taggart et al. 2016).

6.12.3 The State Wide Integrated Flora and Fauna Teams species profile on the spotted-tailed quoll, for example, states that such a program "will require an effective landscape-scale fox control program in order to ensure success" (SWIFFT 2021). There is no reason to believe that the current proposal will not involve similar measures and thereby present a series of threats which ultimately impact upon the appropriateness and acceptability of the intended project.

LETHAL CONTROL PROGRAMS IN THE GNP THE GRAMPIANS ARK

6.13 Parks Victoria is responsible for the management of declared "feral" animals in Victoria's national parks and reserves under obligations set out in the National Parks Act 1975, the Flora and Fauna Guarantee Act 1988 and the Federal Environment Protection and Biodiversity Conservation Act 1999. The Grampians Ark is a Parks Victoria project developed in association with the DELWP, the Panyyabyr Landcare Group and the Victorian Brush-tailed Rock-wallaby Recovery Team (PV 2020b). It was established in 1996 and is one of a number of other similar operations across the state. Part of the program is funded by the Victorian Government's \$33.67 million Biodiversity Response Planning and Weeds and Pests on Public Land initiative (Price 2020).

6.14

The project is often described as a “conservation program” intended to protect native mammals, such as brush-tailed rock-wallabies, by targeting foxes and cats in the GNP (Price 2020). The following is a short review of its activities:

- 6.14.1 In 2018, several projects targeting a range of introduced species in the region were awarded funding under the Biodiversity Response Planning initiative (DELWP 2020c). One of these was granted in the anticipation that the Victorian legislature would enact changes to enable the broad-scale control of cats in the GNP and was described as a project which would compliment “over 22 years investment in landscape-scale fox 1080 poison baiting in the Grampians” (DELWP 2020c).

- 6.14.2 Reviews of the Weeds and Pests on Public Land initiative show that in 2018-19 the fox control program led by the Southern, Glenelg and Grampians Ark groups covered nearly 1.5 million hectares of land with over 63,500 baits. Of these, only 11% were taken. Parsing the data to apply only to the Grampians Ark group, approximately 235,000ha of land was laid with over 20,000 baits. Only 13.7% or approximately 2,939 baits were taken. The annual report published by DELWP note that this constituted a 2% increase in bait uptake from the 2017-18 program. Yet the report goes on to explain that “predator monitoring indicates that fox occupancy rates remain high in the Grampians”, increasing up to 12% in the same period despite a 2% increase in bait uptake (DELWP 2019b).

- 6.14.3 In 2006 fox baiting was carried out across over 70,000ha of the GNP along approximately 450km of road and tracks at one kilometre intervals. At the time, baiting was carried out four times a year, 9 weeks at a time, followed by a one month break. The break is intended to “reduce the affects of bait caching, shyness and avoidance” (PV 2006). This is not tolerance. Rather, it refers to a cumulative reduction in bait efficacy. It is believed to be influenced by behavioural as well as physiological aspects of the species targeted. That is, it may be a learned behaviour or the outcome of interactions between the animals natural diet, the toxins mode of action or the victims ability to biochemically “break down” that toxin (Allsop et al. 2017). The phenomena is known by Parks Victoria who have practiced a month-long break in baiting to counter its possibility (PV 2006).

LETHAL CONTROL PROGRAMS IN THE GNP

HUNTING

- 6.15 Hunting is currently permitted in a number of locations within the GGL. Parks Victoria “supports recreational hunting where it is appropriate” in lands it manages. Hunting is also permitted in adjoining State forests (PV 2020a).
- 6.16 Recent cases of illegal hunters shooting in prohibited areas near and within the GNP raise serious concerns regarding the proposal to reintroduce protected species in the region. These cases have been condemned by the Victorian Police Service. Despite restrictions, such cases indicate a lack of oversight and sufficient enforcement to persuade hunters against illegal actions within prohibited regions (Williams 2019).
- 6.17 The current status of the dingo in Victoria, and Australia more broadly, presents a significant and unrecognised dilemma in the reintroduction proposal component of the Draft Plan. The concerns outlined in subsection 6.16 apply insofar as Government authorities have explicitly claimed that “dingoes are visually indistinguishable from wild dogs” (Robley 2013; Smith and Walsh 2013). As individuals categorised as the latter are considered a “major invasive animal” and a threat to private assets in Victoria, this recognition coupled with ongoing illegal hunting activities in the GNP and its surrounds amplifies concerns for those proposed to be reintroduced (DPJR 2021).
- 6.18 Though the dingo is recognised as a threatened species in Victoria under the Flora and Fauna Guarantee Act 1988 and is thereby listed as threatened and protected under the Wildlife Act 1975, an Order in Council made in 2018 under the latter Act unprotects them in certain circumstances. This Order, made by Minister for Energy, Environment and Climate Change Lily D’Ambrosio and Minister for Agriculture Jaala Pulford declared the dingo “unprotected wildlife” on all private land in Victoria. As a result, dingoes can be killed using traps, baits or firearms in accordance with the Prevention of Cruelty to Animals Regulations 2008, the Agricultural and Veterinary Chemicals (Victoria) Act 1994 and the Firearms Act 1996, respectively (DELWP 2021c).
- 6.19 The possibility that reintroduced populations may migrate outside their intended new range presents a serious problem for the proposal outlined in the Draft Plan. Should dingoes travel outside the GNP, for example, they will likely enter private property as 90% of the surrounding land is private (PV 2003). Upon doing so, they immediately become “unprotected” as per the mechanism described in subsection 6.17. This concern relates to poison baiting, trapping and shooting. It has not been discussed in the Draft Plan and there is no indication that protective measures will be taken post-release, thereby presenting a further incongruity



A DINGO IN THE CROSSHAIRS
IMAGE: EUAN RITCHIE

6.19 with the principles outlined in the Procedure Statement (DELWP 2019a). These are discussed in Section 3 of this submission.

THE PRESENCE OF ANIMAL AGRICULTURE IN THE REGION

6.20 Some regions in the Greater Gariwerd have been highly modified for intensive agriculture (Planisphere 2013; SGSC 2013). Most of the uncleared land is Crown land and State Forest (Sibley 1967). This remains so till this day. Some reports indicate that this sector is increasing in productivity (Jasper 2018). These operations rely on the use of pastures for grazing (Sibley 1967). For example, in mid-2011 the Southern Grampians Shire Council conducted an assessment of the surrounding landscape, including the GNP (SGSC 2011; SGSC 2016b). Its draft report maintained that the area “should remain a productive agricultural landscape” and argued that the use of its land for open grazing should be recognised as “an important character element” of the region (SGSC 2013). Interestingly, the threats the report cited did not include predation. Rather, they refer to the removal or loss of native vegetation, habitat fragmentation, the draining of wetlands for agricultural operations and other ecological manipulations (Planisphere 2013).

6.21 Mammalian carnivores are frequently intensively controlled, either due to their status as endangered or because they are perceived as a pest and are thus subjected to lethal control programs (Glen and Dickman 2005). In many parts of the world large carnivore populations clash and cause significant conflict with human activity and production, particularly animal agriculture (Gangaas et al. 2014). The fact that over 90% of the land adjoining the park is private compounds this pressure (PV 2003). Given that dingoes are effectively an ambiguous species under state law insofar as as they are simultaneously protected and unprotected, particularly on private land, this represents a serious problem the Draft Plan either fails to recognise or ignores.

6.21.1 The presence of dingoes and sheep, for example, is often thought to be “incompatible” (Newsome and Coman 1989). This has historically caused significant conflict between the dingo and sheep farmers (Glen and Short 2000). As discussed above, the Greater Grampians region is principally built upon the agricultural sector (SGSC 2013; DELWP 2020a). Historically, sheep farming has been the most important primary industry in the region insofar as it accounts for the majority of land use and has been one of the key sources of income for landholders in the area (Sibley 1967).

6.21.2 In 2011, a study was conducted in the Gariwerd region to assess the attitudes of various stakeholders, including farmers, non-farmers and wildlife managers, concerning the presence of dingoes (Keen 2011). It found that farmers and non-farmers in the north-east harboured “more strongly attitudes” than those in the Gariwerd region and there existed significant scepticism that “pure” dingoes were present in Victoria more broadly (Thompson et al. 2013). The study found that a prevailing attitude that “wild dogs”, including dingoes, “should be eradicated” (Keen 2011).

6.21.3 Sheep farmers in the region have registered their opposition to this part of the plan (Nakos 2020). Some have claimed they “wouldn’t be able to sleep at night” if the plan is approved and launched (Martin 2020). State MPs have also challenged the proposal. Peter Walsh, member for Murray Plains and leader of the Nationals, issued a press release condemning the plan as “beyond absurd” on the basis that the GNP is “surrounded by prime grazingland”. Walsh maintained that “the devastation caused to stock by wild dogs [sic] is ‘very well known’ to the Victorian Government” and challenged its basis, citing the \$4.4 million allocated to the state Wild Dog Project intended to “reduce the risks” posed by canines (Walsh 2020).

6.22 Similar concerns were expressed before and during predator reintroduction programs carried out elsewhere in the world. For example, conflicts between farmers and wolves in the United States have existed for millennia. This conflict led to coordinated extermination programs which saw the near extirpation of the species across the contiguous United States (Fogleman 1989; Hardy-Short and Short 2000; Bangs and Shivik 2001; Thrower 2009; Wright 2014). In some areas they were successfully eliminated (Bangs et al. 2006). Coupled with habitat loss due to human development, the American wolf came close to extinction (Ragan et al. 2000; Musiani and Paquet 2004). These conflicts reemerged following their reintroduction in areas of their former range (Coleman 2004; Anonymous 2005; Wright 2014). These conflicts are particularly pronounced in regions with high concentrations of animal agriculture.

6.23 Despite the availability of a range of viable conflict management techniques, the conflict between farmers and wolves continues (Thrower 2009; Hutchinson 2014). Unlike the Australian context, American policies include a program which compensates farmers for depredation losses (Ragan et al. 2000; Breck and Meier 2004; Treves et al. 2009). Similar programs exist in other nations with large predators (Bauer et al. 2015). Yet these reintroduction programs have been heralded as significant success stories by ecologists and environmentalists who cite the links between wolf

6.23 presence and improved ecological health and increased biodiversity. Similar to the Australian case of the dingo, ecologists have shown that the removal of wolves from the American ecosystem effected population dynamics and broader ecological health (McLaren and Peterson 1994; Beschta and Ripple 2004; Beschta and Ripple 2007; Ripple and Larsen 2000; Ripple et al. 2001).

ALLEGED THREATS TO HUMAN AMENITY

6.24 Alongside concerns that the presence dingoes in the GNP could adversely impact animal farming industry within the region, Mr. Walsh published allegations regarding threats to visitors to the GNP (Walsh 2020). This is despite the fact that dingoes are “naturally shy and cautious” of humans and will avoid interaction (Winterman 2012). Thus, most authorities advise against providing food (Porter and Howard 2002). Like many species, aggression is most common during breeding season (Fleming et al. 2001). Most reports of dingo attacks are anecdotal (Savant 1969). Experts contend that, despite famous examples of dingo attacks evoking “instinctive horror”, such attacks are “very uncommon” (Fleming 2018).

6.25 The concerns cited in this section represent serious and intractable threats to the appropriateness of the reintroduction proposal in the Draft Plan. Some, such as those outlined in subsections 6.21-23 require investigation. Others, such as those pertaining to the continued use of poison baiting programs in the GNP and its vicinity, are incompatible with the objectives of the proposal and the requirements under binding state policy.

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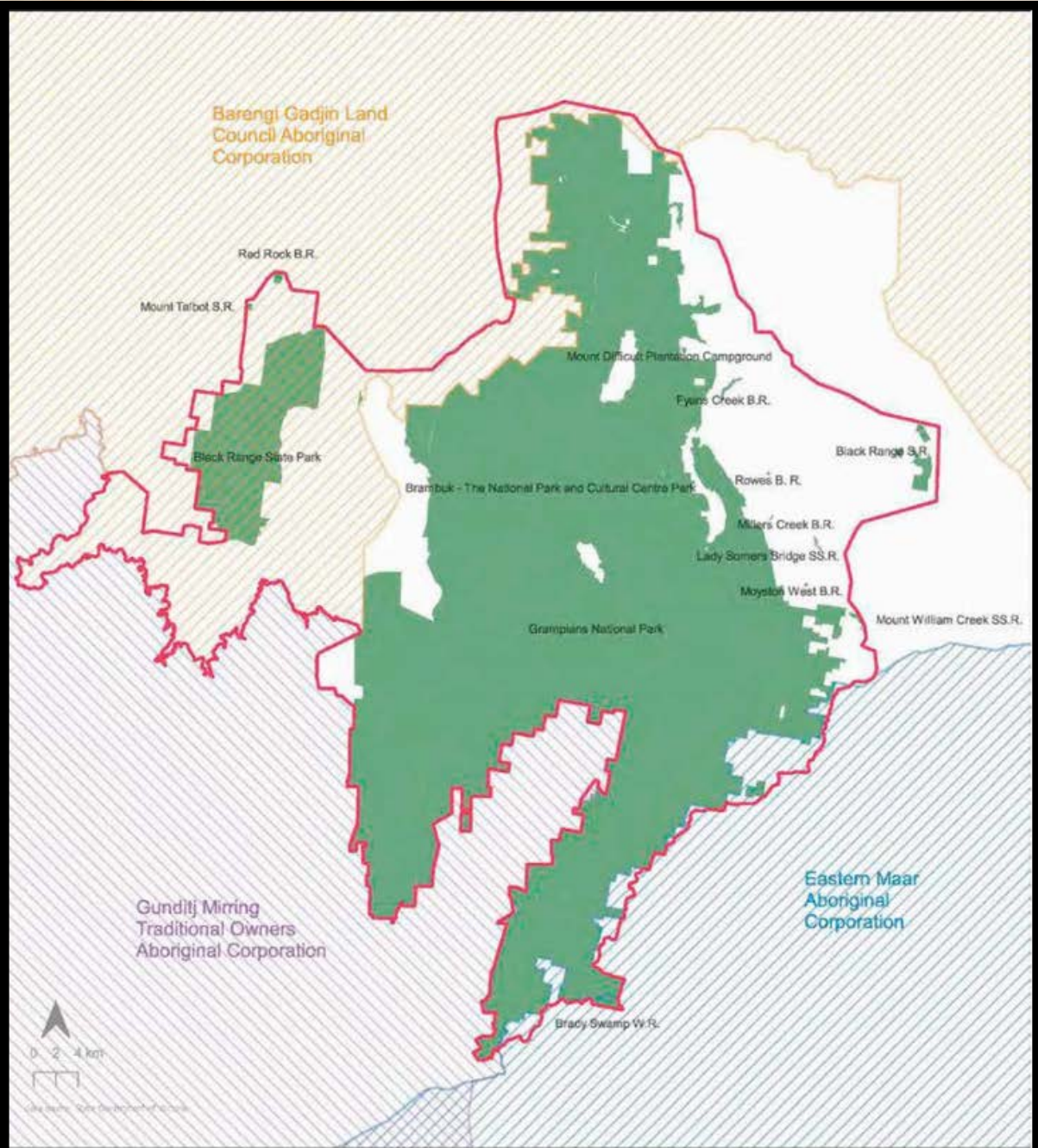
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APPENDICES

PARKS, RESERVES AND CROWN LAND WITHIN THE PLANNING AREA

LAND	SIZE	YEAR PROCLAIMED
Grampians (Gariwerd) National Park	168,241 ha	1984
Black Range State Park	11,727 ha	1988
Bellellen Bushland Reserve	8.5 ha	1983
Black Range Scenic Reserve	528 ha	1983
Cherrypool Highway Park	20 ha	1983
Fyans Creek Bushland Reserve	68 ha	1983
Lady Somers Bridge Streamside Reserve	16 ha	1983
Millers Creek Bushland Reserve	4.6 ha	1983
Mount Talbot Scenic Reserve	23.8 ha	1983
Mount William Creek Streamside Reserve	38 ha	1983
Moyston West Bushland Reserve	7.3 ha	1983
Red Rock Bushland Reserve	58.1 ha	1983
Reids Bushland Reserve	4.8 ha	1983
Rowes Bushland Reserve	6.3 ha	1983
Brady Swamp State Game Reserve	223 ha	1993
Mount Difficult Plantation Campground	12.5 ha	N/A
Brambuk - The National Park and Cultural Centre	1.7 ha	1989



Legend

- Greater Gariwerd Landscape
- Gunditj Mirring Traditional Owners Aboriginal Corporation
- Barengi Gadjin Land Council Aboriginal Corporation
- Eastern Maar Aboriginal Corporation

RELEVANT STATE LEGISLATION AND REGULATIONS

DOCUMENT	LINK
Aboriginal Heritage Act 2006	https://www.legislation.vic.gov.au/in-force/acts/aboriginal-heritage-act-2006/024
Aboriginal Heritage Regulations 2018	https://www.legislation.vic.gov.au/in-force/statutory-rules/aboriginal-heritage-regulations-2018/001
Catchment and Land Protection Act 1994	https://www.legislation.vic.gov.au/in-force/acts/catchment-and-land-protection-act-1994/064
Crown Land (Reserves) Act 1978	https://www.legislation.vic.gov.au/in-force/acts/crown-land-reserves-act-1978/123
Flora and Fauna Guarantee Act 1988	https://www.legislation.vic.gov.au/in-force/acts/flora-and-fauna-guarantee-act-1988/045
Forests Act 1958	https://www.legislation.vic.gov.au/in-force/acts/forests-act-1958/134
Heritage Act 2017	https://www.legislation.vic.gov.au/in-force/acts/heritage-act-2017/004
Land Act 1958	https://www.legislation.vic.gov.au/in-force/acts/land-act-1958/145
National Parks Act 1975	https://www.legislation.vic.gov.au/in-force/acts/national-parks-act-1975/174
National Parks Regulations 2013	https://www.legislation.vic.gov.au/in-force/statutory-rules/national-parks-regulations-2013/006
Parks Victoria Act 2018	https://www.legislation.vic.gov.au/in-force/acts/parks-victoria-act-2018/004
Planning and Environment Act 1987	https://www.legislation.vic.gov.au/in-force/acts/planning-and-environment-act-1987/146
Reference Areas Act 1978	https://www.legislation.vic.gov.au/in-force/acts/reference-areas-act-1978/015
Road Management Act 2004	https://www.legislation.vic.gov.au/in-force/acts/road-management-act-2004/060
Traditional Owner Settlement Act 2010	https://www.legislation.vic.gov.au/in-force/acts/traditional-owner-settlement-act-2010/025
Water Act 1989	https://www.legislation.vic.gov.au/in-force/acts/water-act-1989/131
Wildlife (State Game Reserves) Regulations 2014	https://www.legislation.vic.gov.au/in-force/statutory-rules/wildlife-state-game-reserves-regulations-2014/004
Wildlife Act 1975	https://www.legislation.vic.gov.au/in-force/acts/wildlife-act-1975/125

A close-up, slightly blurred photograph of a dog's face, showing its eye and fur. The dog has light brown and white fur. The image serves as a background for the text overlay.

RELEVANT COMMONWEALTH LEGISLATION

DOCUMENT	LINK
Aboriginal and Torres Strait Islander Heritage Protection Act 1984	https://www.legislation.gov.au/Details/C2016C00937
Environment Protection and Biodiversity Conservation Act 1999	https://www.legislation.gov.au/Details/C2016C00777
Native Title Act 1993	https://www.legislation.gov.au/Details/C2019C00054










RELEVANT POLICIES AND PLANS

DOCUMENT	DEPARTMENT	LINK
Aboriginal Heritage Identification Guide	PV	https://bit.ly/3oE13Gc
Bushfire Management Strategy (Grampians Region)	DELWP	https://bit.ly/2XsOrFJ
Bushfire Management Strategy (Barwon South West Region)	DELWP	https://bit.ly/3bEfUwH
Climate Change Adaptation Plan 2017-2020	VG	https://bit.ly/3scSBzK
Conservation Action Plan for the Greater Gariwerd Landscape	PV	https://bit.ly/3q4Ox2A
Land Management Strategy (forthcoming)	PV	https://bit.ly/35qaZLS
Managing Country Together Framework	PV	https://bit.ly/3bt0871
Protecting Victoria's Environment - Biodiversity 2037	VG	https://bit.ly/3nwRMhF
Shaping Our Future Strategic Plan	VG/PV	https://bit.ly/3bqYfYV
Victoria's 2020 Tourism Strategy	VG/TV	https://bit.ly/2Xq338Z
Victoria's Nature-based Tourism Strategy	VG/TV	https://bit.ly/2Li7srS

APPENDIX 1

FACTORS AND PROCESSES INFLUENCING TROPHIC CASCADES

ADAPTED FROM POLIS ET AL. (2000)

FACTORS	NET EFFECT	REFERENCES
SELF-REGULATION & TROPHIC LEVELS		
CANNIBALISM		1, 2, 3
COMPETITION		4, 5
TERRITORIALITY		6
INTRAGUILD PREDATION		7
REGULATION ACROSS TROPHIC LEVELS		
OMNIVORY		1, 2, 8, 9
INTRAGUILD PREDATION		1, 7
PREDATOR-MEDIATED COEXISTENCE		10
APPARENT COMPETITION		11, 12
INDUCED RESPONSES		3, 13
BEHAVIOURAL RESPONSES		14
POSITIVE INTERACTIONS		15, 16
CONSUMER AGE STRUCTURE		17
FOOD-WEB COMPLEXITY		1, 2, 10, 18
RESOURCE AVAILABILITY AND QUALITY		
TEMPORAL HETEROGENEITY		17
RESOURCE QUALITY IS LOW		3, 18, 19, 20
RESOURCE EDIBILITY IS HIGH		1, 3, 18
RESOURCES DOMINATED BY FEW SPECIES		1, 3, 18
NUTRIENTS RECYCLE RAPIDLY		21
SIZE REFUGIA		22
LANDSCAPE FACTORS		
SPATIAL SUBSIDIES		23, 24
REFUGIA		25
DISTURBANCE PATTERNS		26

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