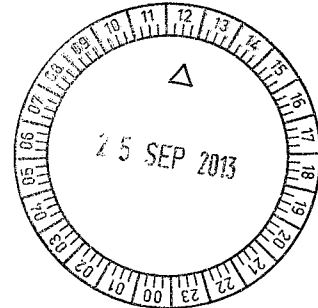




Government of **Western Australia**
Department of **Parks and Wildlife**

Your ref: PAL
Our ref: CEO934/13
Enquiries: Ian Herford
Phone: 08 9842 4500
Email: Ian.Herford@dpaw.wa.gov.au

Ms Lauren Mesiti
Committee Clerk
Standing Committee on Public Administration Committee
Legislative Council
Parliament House
PERTH WA 6000



Dear Ms Mesiti

INQUIRY INTO PASTORAL LEASES IN WESTERN AUSTRALIA

Thank you for your letter of 13 August 2013 inviting a submission in relation to the above inquiry. I note that the Committee has also written to Hon Jacob Albert MLA, Minister for Environment; Heritage, on this matter.

At the request of the Minister for Environment; Heritage, the Department of Parks and Wildlife (DPaW) has coordinated a whole-of-portfolio submission.

Please find enclosed the combined submission from the Conservation Commission of Western Australia, State Heritage Office, Office of the Environmental Protection Authority, Department of Environment Regulation and DPaW.

I can advise that the attached submission is divided into two parts. Part A is the summary portfolio submission from each of the above agencies. Part B is the detailed submission from DPaW that has a particular focus on management of former pastoral leasehold land that has been purchased for conservation reservation. While the matter of management of former pastoral leasehold lands is not specifically addressed in the Terms of Reference for the Standing Committee on Public Administration's Inquiry, I note that the Committee has specifically sought input from DPaW on this matter.

Yours sincerely

Jim Sharp
ACTING DIRECTOR GENERAL

24 September 2013

Att



Government of **Western Australia**
Department of **Parks and Wildlife**

SUBMISSION TO THE STANDING COMMITTEE ON PUBLIC ADMINISTRATION INQUIRY INTO PASTORAL LEASES IN WESTERN AUSTRALIA

By

State Heritage Office, Office of the Environmental Protection Authority, Conservation
Commission of Western Australia, Department of Environment Regulation, and the
Department of Parks and Wildlife.

September 2013

Members

Hon. Elizabeth Behjat MLC (Chair)
Hon. Darren West MLC
Hon. Nigel Hallett MLC
Hon. Jacqueline Boydell MLC
Hon. Amber-Jade Sanderson MLC

TABLE OF CONTENTS

PART A: ENVIRONMENT PORTFOLIO SUBMISSION IN RELATION TO PASTORAL LEASES

1. BACKGROUND.....	1
2. STATE HERITAGE OFFICE.....	1
3. OFFICE OF THE ENVIRONMENTAL PROTECTION AUTHORITY.....	2
4. CONSERVATION COMMISSION OF WESTERN AUSTRALIA.....	2
5. DEPARTMENT OF ENVIRONMENT REGULATION.....	3
5. DEPARTMENT OF PARKS AND WILDLIFE.....	4

PART B: DEPARTMENT OF PARKS AND WILDLIFE SUBMISSION IN RELATION TO MANAGEMENT OF FORMER PASTORAL LEASES PURCHASED FOR NATURE CONSERVATION

1. BACKGROUND.....	1
Role of the Department of Parks and Wildlife.....	1
Status of terrestrial protected area system in Western Australia.....	6
2. GASCOYNE-MURCHISON STRATEGY.....	3
Introduction.....	3
The pastoral industry and the condition of the pastoral rangelands.....	4
Implementation of the GMS.....	6
Funding.....	6
Targeted acquisition program.....	7
Management following purchase.....	8
Examples of successful pastoral lease management.....	9
3. TENURE AND LAND USE.....	9
Tenure.....	9
Native Title and Aboriginal joint management arrangements.....	10
Rangelands reform.....	10
4. ECONOMICS AND INDUSTRY STANDING COMMITTEE INQUIRY.....	11
5. STRATEGIC PLANNING.....	12
Stakeholder engagement.....	12
6. PROPERTY MANAGEMENT.....	13
Management of pest animals and weeds.....	13
Wild dogs.....	13
Feral goats.....	15
Camels.....	17
Donkeys.....	18
Boundary fencing.....	18
Closure of artificial water sources.....	19
Weeds.....	19
7. PRESERVATION OF PASTORAL HERITAGE.....	19
Heritage legislation and responsibilities.....	20

Aboriginal heritage.....	20
Current activities.....	20
Homesteads.....	21
Visitor safety.....	21
8. OPPORTUNITIES FOR IMPROVED MANAGEMENT.....	21
Resourcing.....	22
Fencing.....	22
Tourism.....	22
Aboriginal involvement.....	22
Fire.....	23
Off-reserve ecologically sustainable management.....	24
Partnerships.....	24
Rehabilitation.....	24
Mustering and trapping of feral animals.....	24
Dingo and wild dog control.....	25
Project management.....	25
Monitoring.....	25
9. CONSIDERATION OF THE ECONOMIC POTENTIAL OF NON-PASTORAL USES FOR THIS LAND.....	25
Mining.....	26
Tourism.....	26
Diversification in the rangelands.....	27
Carbon sequestration.....	27
Other activities.....	27
10. CONCLUSION.....	28
ATTACHMENTS.....	30

STANDING COMMITTEE ON PUBLIC ADMINISTRATION INQUIRY INTO PASTORAL LEASES IN WESTERN AUSTRALIA

PART A: ENVIRONMENT PORTFOLIO SUBMISSION IN RELATION TO PASTORAL LEASES

1. BACKGROUND

This submission has been prepared as a joint submission from Environment Portfolio agencies in relation to the principal terms of reference of the Inquiry.

The agencies involved are:

- State Heritage Office;
- Office of the Environmental Protection Authority;
- Conservation Commission of Western Australia;
- Department of Environment Regulation; and
- Department of Parks and Wildlife

2. STATE HERITAGE OFFICE

The State Heritage Office works with the Heritage Council to:

- Establish and maintain the State Register of Heritage Places, a comprehensive statutory list of places that have heritage value to the State;
- Ensure any development of heritage places is sensitive to its cultural heritage values; and,
- Promote awareness and knowledge of Western Australia's cultural heritage.

The State Heritage Office has an interest in this inquiry in terms of cultural heritage management.

The State Government is the largest single owner of property in the State. Recognising that many pastoral leases have features that are or may be of cultural heritage significance to current and future generations of Western Australians, the Government adopted the Government Heritage Property Disposal Process (GHPDP) policy.

The purpose of the GHPDP policy is to identify and assess the heritage value of government property under consideration for disposal, and to provide relevant protection where appropriate. "Disposal" includes the sale, transfer or lease of a property outside the State Government sector (where transfer or lease is for a duration of at least 10 years), and includes the demolition of places. This may apply to situations involving a new pastoral lease. This policy applies to all State Government agencies and to all statutory authorities listed in Schedule 1 of the *Financial Management Act 2006*.

The referral of a property being considered for disposal to the Heritage Council for assessment is not required if the place is already entered in the State Register of Heritage Places, or if the State Heritage Office has advised the outcome of the Heritage Council's Register Committee's consideration of the place. The majority of places that are referred to the Heritage Council through the GHPDP do not progress to the State Register of Heritage Places.

Entry in the State Register does not mean a place cannot be changed to meet contemporary needs or adapted to a new use. The Heritage Council encourages sensitive development and new compatible uses of heritage places because this is the best way of ensuring their future.

2. OFFICE OF THE ENVIRONMENTAL PROTECTION AUTHORITY

The Office of the Environmental Protection Authority (OEPA) was established to support the EPA in conducting environmental impact assessments and developing policies to protect the environment. The OEPA also monitors compliance with Ministerial conditions related to approvals under the *Environmental Protection Act 1986*.

The OEPA is accountable to the Minister for Environment, as well as to the Environmental Protection Authority. To be successful in its work, the OEPA must also collaborate with a range of clients and stakeholders, including Government agencies, industry peak bodies, environmental non-Government organisations, proponents, and members of the community.

The OEPA notes from the Commissioner for Soil and Land Conservation's annual report to the Pastoral Lands Board for 2011/12 (Attachment 1) that ongoing decline in pastoral land condition is occurring throughout Western Australia's rangelands, and that excessive stocking rates in combination with seasonal conditions are the key factors contributing to this decline.

The OEPA supports the rangelands reform measures that are being developed, including proposed land tenure reforms and improvements to the diversification permit system. The reforms appear to offer a number of opportunities to assist in improving management of rangelands, including the concept of a rangelands lease which would broaden the options for managing pastoral lands to include conservation purposes.

The Environmental Protection Authority has proposed the establishment of a strategic conservation initiative for the Pilbara region as a mechanism to pool offsets funds to achieve biodiversity conservation outcomes. The Ministers for Environment and Mining and Petroleum have endorsed a process for consultation with industry on the consideration of such a fund. This could provide an opportunity for investment in pastoral lands in the Pilbara, and particularly the proposed 2015 pastoral exclusion areas to improve condition for biodiversity outcomes.

3. CONSERVATION COMMISSION OF WESTERN AUSTRALA

The Conservation Commission of Western Australia (Conservation Commission) is an independent statutory authority that was established by Parliament under the *Conservation and Land Management Act 1984* (CALM Act) in November 2000. The Conservation Commission is the controlling body in which the State's terrestrial conservation estate is vested.

The Department of Parks and Wildlife manages lands on behalf of the Conservation Commission. The Conservation Commission is responsible for the preparation of management plans for lands vested in it. Management plans are developed on behalf of the Conservation Commission by the Department of Parks and Wildlife and independently monitored and audited by the Conservation Commission. The development of management plans includes the development of forest management plans.

The Conservation Commission develops policies and provides independent advice to the Minister for Environment with respect to conservation, the management of ecological biodiversity and the application of ecologically sustainable forest management.

The Conservation Commission's mission is to conserve the state's biological diversity and ensure the conservation estate is managed in an ecologically sustainable manner. A complementary body, the Marine Parks and Reserves Authority, is responsible for the care and control of marine reserves and relevant land vested in it.

The Conservation Commission consists of nine members of the community who are appointed on the nomination of the Minister. Members are appointed on the basis of their knowledge and experience in:

- biological diversity conservation
- environmental management (including managing the natural environment for recreational purposes)
- the sustainable use of natural resources.

One member must be a person who has knowledge of and experience in Aboriginal culture and Aboriginal heritage matters relevant to the function of the Conservation Commission, and is able to make a contribution to its functions

The Conservation Commission made a detailed submission to the 2010 Legislative Assembly Economics and Industry Standing Committee Inquiry into the Department of Environment and Conservation's Management of Former Pastoral Leases. A copy of this submission is attached at Attachment 2.

The main update to the commentary in Attachment 2 relates to management planning. A strategic management plan for former pastoral properties in the southern rangelands is in preparation by the Department of Parks and Wildlife. The Conservation Commission understands that a draft of the strategic management plan will be released for public comment ahead of the publication of a final management plan in 2014.

The following extract from the Conservation Commission's 2010 submission is pertinent to the process of establishing a network of conservation reserves across the State. The then Department of Environment and Conservation *"has been involved in the acquisition of land formally held as pastoral leasehold that has been identified as having high biodiversity and conservation values as part of the Gascoyne-Murchison Strategy, which the Western Australian Government endorsed in 1998. The endorsement of this Strategy was part of the State's commitment to the establishment of a Comprehensive, Adequate, and Representative conservation reserve system which is predicated by the Commonwealth government's commitments to the establishment of a national conservation reserve system. Following Australia's ratification in 1993 of the United Nations Conference on Environment and Development, the Commonwealth developed the national framework for the conservation of biodiversity to which all states and territories agreed. The land acquisition program sits within this government initiated policy. Implementing this policy has been a bi-partisan effort, with both state and commonwealth governments continuing the WA coalition initiative, including pastoral leasehold land in this state. The primary objective for the management of this land is the conservation of biological diversity."*

4. DEPARTMENT OF ENVIRONMENT REGULATION

The Department of Environment Regulation commenced operations on 1 July 2013. The department has two main services – environmental regulation and environmental sustainability and climate change. The Department has responsibility under the *Environmental Protection Act 1986* for the licensing and registration of prescribed premises, regulation of clearing of native vegetation and the administration of a range of regulations. It also monitors and audits compliance with works approvals, licences, clearing permits, and their conditions, as well as regulations, and take enforcement action as appropriate. The department's regulatory role is supported by sound science and policy.

The Department of Environment Regulation has determined not to lodge a detailed submission to the Inquiry in this instance.

Please note however that where a pastoral diversification activity requires an environmental approval, section 117 of the *Land Administration Act 1997* requires that environmental conservation requirements, including those required under the *Environmental Protection Act 1986* are first satisfied, before a pastoral diversification permit is issued under the *Land Administration Act 1997*.

In relation to information on the regulation of clearing of native vegetation and pastoral activities, refer to the Fact Sheet 7: *Clearing previously cleared land, grazing on and management of pastoral leases and Pastoral Lands Board requirements* included at Attachment 43 to this portfolio submission.

5. DEPARTMENT OF PARKS AND WILDLIFE

The Department of Parks and Wildlife (DPaW) is the State agency primarily responsible for the conservation of biodiversity and management of the conservation reserve system, State forest and timber reserves in Western Australia. DPaW manages lands and waters entrusted to it for the purposes of their reservation consistent with its powers under the *Conservation and Land Management Act 1984*. DPaW is also responsible for the conservation of biodiversity across the State under the *Wildlife Conservation Act 1950*.

The Standing Committee on Public Administration would be aware that the Parliament, through the Legislative Assembly Economics and Industry Standing Committee, inquired into the then Department of Environment and Conservation's management of former pastoral leases in 2010. DPaW provided a detailed submission to that inquiry and has been implementing the Government's response to that Committee's recommendations. DPaW has updated its detailed submission to that inquiry for the purposes of the current inquiry and this is included at Part B of this portfolio submission.

In terms of the environmental damage component of this inquiry it may be instructive to consider the wealth of information that has been collated over the years in terms of ecologically sustainable use of natural land areas for human benefit. A particularly useful source has been the Millennium Ecosystem Assessment. The Millennium Ecosystem Assessment (MA) was a global assessment undertaken by more than 1,360 experts undertaken between 2001 and 2006 under the auspices of the United Nations Environment Programme. The MA commenced in response to a call from the then United Nations Secretary-General Kofi Annan in 2000.

The overall objective of the MA was to assess the consequences of ecosystem change for human well-being and to develop a scientifically based series of actions to enhance the conservation and sustainable use of natural ecosystems. The findings are available in a series of technical and synthesis reports. A relevant synthesis report is the 2005 publication '*Ecosystems and Human Well-being: Synthesis*'. This report considered current and possible future responses to the challenge of achieving sustainable use of natural ecosystems. The synthesis found that on a global scale there has been significant degradation to natural ecosystems and the consequent loss of ecosystem services. The issues identified relating to over-use of the natural resources in landscapes can be considered to have relevance to the management of Western Australian rangelands, particularly in the light of the August 2012 report of the Soil and Land Conservation Commissioner to the Pastoral Lands Board, which identified the risks of ongoing over-stocking of many pastoral leases across the Pilbara, Kimberley and Southern Rangelands.

A key finding of the MA reported in the above synthesis report was that:

- *“Past actions to slow or reverse the degradation of ecosystems have yielded significant benefits, but these improvements have generally not kept pace with growing pressures and demands.”*

The above finding was explained as follows. *“Although most ecosystem services assessed in the MA are being degraded, the extent of that degradation would have been much greater without responses implemented in past decades. For example, more than 100,000 protected areas (including strictly protected areas such as national parks as well as areas managed for the sustainable use of natural ecosystems, including timber or wildlife harvest) covering about 11.7% of the terrestrial surface have now been established, and these play an important role in the conservation of biodiversity and ecosystem services (although important gaps in the distribution of protected areas remain, particularly in marine and freshwater systems).”*

The above MA synthesis report found that Protected Areas (PA) *“are extremely important in biodiversity and ecosystem conservation programs, especially in sensitive environments that contain valuable biodiversity components. At global and regional scales, existing PAs are essential but not sufficient to conserve the full range of biodiversity. PAs need to be better located, designed, and managed to ensure representativeness....”*

The most recent quantification of the landscape goals for conservation reserves has been in the targets under the international Convention on Biological Diversity (CBD). In 2010 the CBD incorporated the Aichi Biodiversity Targets which include the following target.

- *“By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.”*

Western Australia is well short of this reservation target, with many rangelands subregions having less than 5% secured in conservation reserves. DPaW has been purchasing lands, including former pastoral leases to progress the State toward international protected area benchmarks. DPaW is currently managing 35 whole former pastoral leases and parts of a further 26 leases state wide, with a total area of 6.2 million hectares, which have been acquired for addition to the conservation reserve system. Many of these are awaiting formal reservation through State clearance processes and *Native Title Act 1993* requirements. In addition, there are some former pastoral leases which have already been reserved, such as Cane River Conservation Park, Dirk Hartog Island National Park and Francois Peron National Park

When all of the purchased former pastoral leases are reserved, most of the Western Australian rangelands subregions will have protected areas covering 5% to 10% of the land area. Many, however, will still be below the international target.

In terms of sustainable land use, DPaW considers that its management of the former pastoral lease areas ahead of their planned reservation as protected areas is consistent with sound conservation management of the rangelands. The process of converting former pastoral leases to conservation lands involves the planned sequential reduction in the availability of artificial water supplies along with destocking and targeted feral animal control. Removal of artificial waters and livestock also results in reduction of kangaroo populations and feral goat populations and is consistent with rangeland rehabilitation management advocated by the Department of Agriculture and Food and the scientific research undertaken in this area. DPaW is routinely involved in regional approaches to wild dog and other feral animal control undertaken through Declared Species Groups and cooperates with neighbours in terms of fencing, pest animal and weed control endeavours.

The Western Australian rangelands have changed dramatically over the past 200 years. In terms of native species conservation, the rangelands have suffered very significant losses of

native species, particularly in the small to medium native mammal categories. The Australian Terrestrial Biodiversity Assessment 2002 (NLWRA, 2002) identified that the WA rangelands are amongst the worst areas of Australia for mammal decline (see Figure 6.2 from the audit report, copied below).

Figure: Mammal fauna species decline across Australia over the last 200 years.

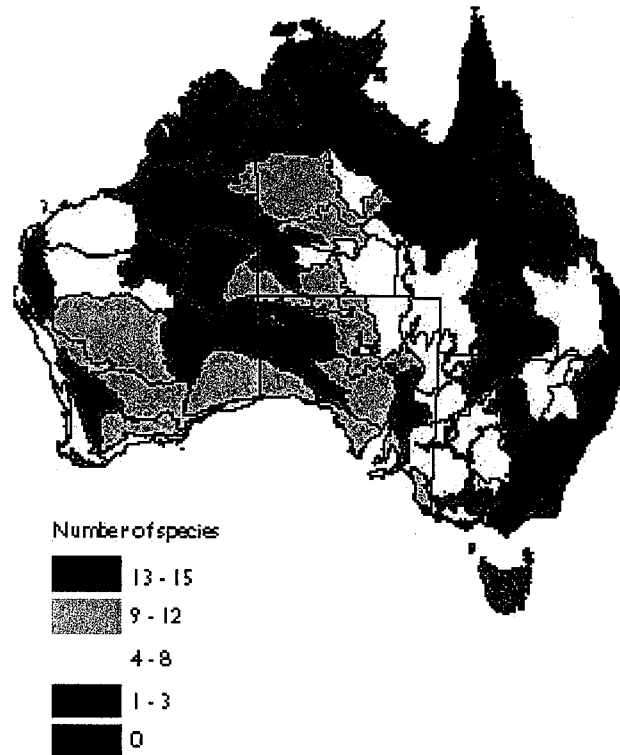


Figure 6.2 Range contraction: number of species in the pre-European fauna in each bioregion that have contracted from more than 90% of the bioregions that they originally occupied.

Copied from: Australian Terrestrial Biodiversity Assessment 2002: National Land and Water Resources Audit. Commonwealth of Australia, Canberra, Australia 2002.

DPaW is committed to the long term goal of re-establishing native species (including native mammals) as well as natural habitats and communities, across many parts of their former range across the State, including in the rangelands. Work has commenced on such reconstruction in the former Lorna Glen/Earaheedy pastoral leases as well as in other groups of proposed conservation reserves that were former pastoral leases. Work has also commenced on the project to return Dirk Hartog Island to the abundance of native species the island hosted prior to the impacts of settlement and feral cats. This former pastoral lease, which is now Dirk Hartog Island National Park has lost 10 of its 13 native mammal species in the past 200 years. Each of the ten locally extinct native species is to be re-established following eradication of feral cats.

The above ecological reconstruction plans will take many years to achieve, but they follow success in the south-west under the Western Shield program and also successes at Shark Bay in Francois Peron National Park (formerly Peron pastoral lease).

Further details of the ecological reconstruction plans for the former pastoral leases and the other matters outlined above are contained within the full DPaW submission at Part B.

PART B: DEPARTMENT OF PARKS AND WILDLIFE DETAILED SUBMISSION IN RELATION TO MANAGEMENT OF FORMER PASTORAL LEASES PURCHASED FOR NATURE CONSERVATION

1. BACKGROUND

Role of the Department of Parks and Wildlife

The Department of Parks and Wildlife (DPaW) is the State agency primarily responsible for the conservation of biodiversity and management of the conservation reserve system, State forest and timber reserves in Western Australia.

- (i) DPaW (previously the Department of Environment and Conservation or DEC) has the lead responsibility for protecting and conserving the State's biodiversity (flora and fauna) on behalf of the people of Western Australia. This includes managing the state's national parks, marine parks, conservation parks, State forests and timber reserves, regional parks, nature reserves, marine nature reserves and marine management areas for biodiversity conservation as well as sustainable recreation and natural landscape appreciation. The functions and powers of DPaW in this respect are provided in the *Conservation and Land Management Act 1984* (CALM Act).
- (ii) The formal conservation reserve system in Western Australia features a legislative framework (CALM Act and *Land Administration Act 1997* [LAA]), public ownership and access, formal management plans prepared with public input, public accountability mechanisms including agency annual reporting, statutory auditing, and Ministerial and Parliamentary oversight.
- (iii) The establishment and maintenance of a comprehensive, adequate and representative (CAR) conservation reserve system representing the full range of landforms and biological communities provides the primary means for conserving Western Australia's rich and highly endemic biodiversity and is in keeping with national and international commitments and practices, including under 'Australia's Biodiversity Conservation Strategy 2010-2030', 'Australia's Strategy for the National Reserve System 2009-2030' and the 'Strategic Plan for Biodiversity 2011-2020' under the International Convention on Biological Diversity. The system of parks and reserves also plays a key role in community wellbeing, sustainability and state-wide and regional economies through sustainable nature-based tourism and recreation. A map showing the lands and waters managed by DPaW is at Attachment 3.
- (iv) The establishment of a conservation reserve system that meets CAR criteria is a commitment by state, territory and Commonwealth governments and is included in a range of national and state policies and programs including those listed above. Examples of additional national and state policies are provided at Attachment 4 *Directions for the National Reserve System – A Partnership Approach* (Natural Resource Management Ministerial Council, 2005) and Attachment 5 *Managing the Rangelands* (WA Government, 1999).
- (v) Successive State governments have undertaken programs to expand the terrestrial conservation reserve system to meet regional and state-wide conservation and sustainable development goals. This has included the acquisition over a number of years of about six million hectares of former pastoral lease land, mostly in the Gascoyne-Murchison region, for addition to the conservation reserve system. Accepted national and international targets are for between 10% and 17% of the terrestrial landscapes at a regional scale to be managed for conservation within the network of protected areas or conservation reserves. Achieving these reservation targets is a ready way for

jurisdictions to secure natural ecological processes, including biodiversity services, to achieve a basis for sustainable development in the remaining areas (83% to 90% of the regions). There are few conservation reserves in pastoral areas of the State, with protected areas currently accounting for between 0% and 16%, with many having less than 5%. These figures are well below accepted benchmarks for sustainable land use. In recognition of this and the declining productivity on pastoral lands successive State Governments have supported the purchase of former pastoral lease areas for inclusion in the formal reserve system. The lands that have been acquired were selected because of their high conservation values, including vegetation types and ecosystems not represented or poorly represented in the existing reserve system. The article titled *Filling the Gaps* (published in DPaW's quarterly publication *Landscape* in 2000) at Attachment 6 provides an overview of this program in the context of the Gascoyne-Murchison region.

- (vi) The national framework against which progress towards a CAR conservation reserve system is planned and measured is the Interim Biogeographic Regionalisation for Australia (IBRA). WA is seeking to meet a general target of 15 per cent of the area of each IBRA sub-region in the formal conservation reserve system. This target has been increased internationally, with the Aichi Targets agreed under the Convention on Biological Diversity in 2011 that "By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures". The WA system of terrestrial conservation reserves is still well short of meeting these criteria, particularly across the rangelands.
- (vii) As part of its role DPaW identifies, and purchases where appropriate, areas of land that will make significant additions to the conservation of biodiversity in WA. The purchase of selected pastoral leases and their management for the purpose of conservation is consistent with this role. Once purchased, pastoral leases are surrendered and the land reverts to unallocated Crown land while the process of reservation is undertaken.
- (viii) The Department of Conservation and Land Management's (CALM)¹ 2003 publication *Establishment of a Comprehensive, Adequate and Representative Terrestrial Conservation Reserve System in Western Australia* (see copy at Attachment 7) summarises the policies and rationale underpinning conservation reserve planning, including the Gascoyne-Murchison Strategy (GMS) which is described in more detail below.
- (ix) Since 2003, further documents containing strategies and actions to guide progress towards nationally agreed standards for reservation levels have included the draft of *A 100-year Biodiversity Conservation Strategy for Western Australia* (WA Government, 2006), *Directions for the National Reserve System – A Partnership Approach* (Natural Resource Management Ministerial Council, 2005) and *Australia's Strategy for the National Reserve System 2009-2030* (2009).

A history of the WA pastoral industry, including the GMS, is included in the book *Rescuing the Rangelands: Management strategies for restoration and conservation of the natural heritage of the Western Australian rangelands after 150 years of pastoralism* (Tony Brandis, 2008). This book represents the results of Dr Brandis' research towards his Doctorate, which was undertaken while he was employed as Senior Policy Adviser and Project Manager of Rangeland Conservation at DEC. During this time he was primarily responsible for implementing the pastoral acquisition program for the GMS.

¹ The Department of Conservation and Land Management was a predecessor to DPaW.

Status of the terrestrial protected area system in Western Australia

Western Australia's formal terrestrial conservation reserve system is the cornerstone for conserving the state's biodiversity, as well as providing much of the basis for nature-based recreation and tourism for current and future generations.

As at 30 June 2013, WA had a formal terrestrial conservation reserve system comprising national parks, conservation parks, nature reserves and miscellaneous conservation reserves under the CALM Act covering 7.9 per cent of WA's land area. Reservation of the six million hectares of pastoral leasehold land that has been acquired for conservation reserves as at 30 June 2013 will bring the total terrestrial conservation reserve system to about 10.3 per cent of WA's land area.

This is significantly less than the 17 per cent international benchmark figure. From the map at Attachment 8 it can be seen that, as at 2012, the bulk of the IBRA sub-regions covering the rangelands had reservation levels ranging between zero and five per cent. The map at Attachment 9 depicts reservation levels that will be achieved when the pastoral acquisitions become part of the formal conservation reserve system.

The State Government has maintained support for the development and management of a comprehensive system of terrestrial and marine conservation reserves, with implementation of the *'Kimberley Science and Conservation Strategy'* focusing on major expansions of the terrestrial and marine conservation reserve systems and election commitments to create the proposed two million hectare Wanjina National Park, and a new national park at Horizontal Falls, as well as new marine parks extending around the North and East Kimberley and at Horizontal Falls. The State is also implementing *'A Biodiversity and Cultural Conservation Strategy for the Great Western Woodlands'*.

2. GASCOYNE-MURCHISON STRATEGY

Introduction

The Pastoral Wool Industry Taskforce Report (1993) identified the poor state of the wool industry and the natural resources that support it.

Following the release of the report, pastoralists in the Gascoyne-Murchison areas of the State called for a restructuring/adjustment process, in recognition of the difficult commercial and social issues the pastoral industry was facing in these areas.

The Taskforce report identified that the rangelands environment was generally in poor condition and continuing to degrade. It also recognised that there was need for land use diversification including a requirement to set aside representative areas for conservation, since the earlier alienation of most of the region for pastoral use had occurred before there was recognition of the damage that overstocking of the rangelands for pastoralism would cause, and the benefits that would accrue from reserving areas as conservation reserves (see extract at Attachment 10).

There have also been a number of other inquiries sponsored by government into the pastoral industry (both wool and cattle) since 1950 that have all identified the questionable viability of up to 50 per cent of leases. The most recent, the Southern Rangelands Pastoral Advisory Group Report, was concluded in October 2009. Two of the inquiries have recommended that government intervention was necessary to facilitate the withdrawal of a number of unviable leases by way of surrender of the lease or by amalgamation with neighbouring leases. Limited action to address these matters has been taken by successive governments (see Tony Brandis, 2008; pages 22-27).

The pastoral industry and the condition of the pastoral rangelands

Degradation of the Rangelands

Rangeland condition surveys across WA's pastoral rangelands have been conducted since the 1960s based on a condition classification of very good; good; fair; poor; and very poor. These surveys have shown that less than 50 per cent of land is in the good category and in some areas such as the Murchison, this figure is closer to 20 per cent.

Grazing of sheep and cattle over a long period of time has led to a decline in the extent and condition of native vegetation, soil degradation and a decline in the distribution and abundance of native fauna over much of the pastoral zone. The significant impacts of total grazing pressure (stock, feral and native grazers) have been greatly exacerbated by the regular periods of drought that affect these areas.

The causes of rangeland deterioration include overstocking, lack of flexibility in adjusting stock numbers to seasonal conditions, impact of preferential grazing of some plant species which can lead to local extinctions, the slow rate of regeneration of perennial plants and the frequency of droughts. Overstocking continues to be an issue of major concern. Over the last decade, the industry in parts of the state has relied to some extent on the sale of unmanaged (feral) goats to support pastoral enterprises. The 'unmanaged' goats (i.e. not ear-tagged or held behind industry standard fencing) have contributed to a grazing pressure well above that approved for individual properties.

The long history of grazing has led to a significant reduction of vegetative cover and accumulated litter and reduced infiltration of water into the soil profile, so there has been a progressive drying out of the soil profile. At the same time, there has been a greater proportion of run-off following rainfall events, leading to erosion and siltation of creek and river systems. Increased surface water flows contribute to greater loss of topsoil, seed resources and regeneration potential. The photos at Attachment 11 show the effects of flooding on the landscape during and after a flood.

The decline in the condition of the rangelands has seen a significant deterioration in habitat for native plants and animals. At least six medium-sized native mammal species have disappeared from the southern rangelands due to the combined impacts of habitat degradation and introduction of feral predators such as the cat and fox.

The *Australian Terrestrial Biodiversity Assessment* (2002) demonstrated that the rangelands and desert regions of Western Australia had amongst the worst records across Australia for loss of mammal species, with between 31 and 66 per cent of mammal species lost from over half of these areas (see Figures 6.2 and 6.5 from the Assessment at Attachment 12). These impacts have largely been through loss of vegetative cover, exposing native animals to native and introduced predators, and loss of landscape productivity through loss of topsoil and vegetation.

Further destruction of remnant habitats by feral grazers such as goats has also had a significant impact on both flora and fauna species. Many of the smaller reptile, mammal and bird species are now generally much less abundant than in the past.

Potential for recovery

Recovery from the cumulative impacts of grazing (loss of vegetation, compaction of soil, increased surface water run-off, erosion, loss of flora/fauna species) is dependent on reduction of total grazing pressure (including artificially high numbers of native grazers such as kangaroos as a result of the maintenance of artificial water points).

Recovery (depending on the criteria set) can take from a few years to many decades to occur, depending on the initial condition of local ecosystems, type of soils and vegetation, availability of

seed and soil moisture from rainfall, and the success of programs to reduce and eventually remove destructive factors including feral goats, feral cats and foxes.

Trends in recovery of vegetation, flora and fauna have been identified on a number of properties where monitoring has been undertaken since DPaW purchased them. It is DPaW's view that destocking areas and controlling feral animals and over-abundant kangaroos, combined with progressive reversion to natural water systems, significantly reduces degradation of remaining natural habitats and provides an environment for habitat recovery, particularly where reasonable rainfall is received. In particular it is widely recognised that provision of artificial waters, which has been necessary for livestock production, provides an opportunity for overgrazing of areas within walking distance to water points, particularly by feral animals.

At Lorna Glen, rangeland monitoring sites established in the 1970s by the (now) Department of Agriculture and Food (DAFWA) were used as the focus for assessing changes in vegetative cover over time. Historic photography from 1979 and 1987 was compared with photography taken by DPaW in 2007. In addition, remote sensing trend analysis was also conducted across those sites from 1989 to 2004. (Lorna Glen was purchased in 2000 and progressively destocked between 2000 and 2002. Artificial waters were progressively closed during that period, and completed by late 2003.)

Eight of the 12 sites show a significant increase in vegetative cover that coincides with destocking and dewatering the property under management by DPaW, and increased vegetation density appears evident during the period 2000-2004 compared with preceding years under a grazing regime. The photography from most sites illustrates the increase in vegetation cover with most showing considerably more ground cover - see Attachment 13.

Comprehensive baseline vertebrate and vascular flora assessment has been undertaken at Lorna Glen, Lake Mason, Muggon, Waldburg and Goongarrie (all purchased for conservation). This provides essential contextual information against which some elements of change post pastoral management may be measured.

A comprehensive set of grazing exclusion plots has been established on three purchased Midwest properties (Muggon, Woolgorong and Burnerbinmah) and these will provide invaluable on-ground and remotely sensed recovery and management response information.

Increased species richness and abundance was recorded across 24 vertebrate study sites on Lorna Glen between 2002 and 2007 and at the same time an increase in vegetative cover was recorded across those sites. This indicates that the reduction in total grazing pressure was a key factor in influencing the result.

Rehabilitation

Whilst active degradation of landscapes through the action of surface water movement and subsequent erosion is an issue at specific locations in most pastoral properties in the Gascoyne-Murchison, including those properties acquired and managed by DPaW, no real improvement can be achieved on the lands without a major reduction in total grazing pressure (stock, feral and native grazers). Even if removing this grazing pressure in association with removal of artificial water points and attention to fencing are the only management actions taken for some time, this removes the degradation pressures and so represents a major benefit for the recovery process.

Another significant issue to consider is the cost and duration of rehabilitation. It has been demonstrated that delays to rehabilitation lead to increased costs, especially where degradation is allowed to continue. From first principles and experience, protecting the current remaining biodiversity values of key parts of the rangelands and then beginning to rehabilitate them is far cheaper than rebuilding more severely degraded ecosystems in the future. This point was made

by the Prime Minister's Science, Engineering and Innovation Council in its 2002 report *Sustaining our Natural Ecosystems and Biodiversity*.

In some particular landscapes, the reduction in grazing pressure will have to be complemented by specific rehabilitation management intervention where the soil surface has been severely degraded. DPaW has established trials in some locations to test techniques for future more widespread rehabilitation.

Landscape rehabilitation requires a long-term commitment to management and monitoring. It therefore needs to be based on sound science as well as local knowledge and needs to be tackled on a priority basis. Photographs showing the results of current trials are at Attachment 14.

Implementation of the Gascoyne Murchison Strategy

In May 1997 State Cabinet reviewed the Gascoyne Murchison Strategy (GMS) report prepared by the Gascoyne-Murchison Rangelands Steering Committee and endorsed 40 of the 43 recommendations contained in it. An extract from the report relating to DPaW (CALM) is at Attachment 15.

The GMS Cabinet Sub-committee was instructed by Cabinet to develop a strategy following negotiation with state and federal authorities. A GMS Action Plan was then prepared and implemented under the direction of the GMS Board. A representative from DPaW (then CALM) was appointed to the Board to provide environmental advice.

The regional goal identified for the strategy was '*A socially and economically viable community involved in a diverse range of industries, based on the use of the rangelands in an environmentally sustainable way*'.

The GMS included a range of programs and measures to address environmental, economic and social needs in the southern rangelands. The strategy was composed of four core programs.

- Business and industry development grants;
- Industry research and development projects;
- Voluntary lease adjustment; and
- Better regional environment management.

A key element of the Regional Environment Program was the establishment of a CAR conservation reserve system across the Gascoyne-Murchison rangelands. This task and the resources to achieve it were allocated to DPaW (CALM). The IBRA regions across the pastoral rangelands of the Gascoyne-Murchison area were identified as high priority for reserve creation to meet the objectives of the National Reserve System.

Funding

Funding for land purchase

The budget provided by the state for the purchase of pastoral leases for addition to the reserve system under the GMS was initially \$6.8 million over six years, with an expectation that there would be substantial funding from the Commonwealth government as part of the 1997 State/Commonwealth Partnership Agreement for the Natural Heritage Trust. The Commonwealth committed initially to a 2:1 (Commonwealth:State) financial contribution to the purchase of pastoral lands. This was reduced in 2003 to 1:1, and since 2009 has been reinstated to the original 2:1 level under the *Caring for our Country* initiative.

Since 1998 \$13.49 million has been spent on purchasing pastoral leases for conservation purposes within the GMS area that are yet to be reserved. The Commonwealth has contributed about \$7.4 million of this amount.

Funding for land management

The State Government also provided a budget for ongoing management of the purchased rangeland properties comprising \$0.4 million in 2000/01, \$0.75 million in 2001/02 and an ongoing commitment of \$1.05 million from 2002/03. DPaW has applied extra resources to the management of acquired properties through reallocation of existing resources.

DPaW spent an estimated \$2.72 million in 2012-13 on a variety of projects including boundary fencing, infrastructure upgrades and control of feral animals, weeds and wild dogs.

Targeted acquisition program

The purchase of pastoral leases under the GMS was conducted in a structured and methodical manner. This involved initial discussion with vendors, a process of property evaluation and Ministerial approval.

All negotiations were voluntary. Pastoralists who were interested were encouraged to approach the department to discuss potential purchase.

The assessment and evaluation of the conservation values contained within a pastoral lease offered for sale was carried out using a range of information. A key element in the approach was use of vegetation associations as a surrogate for ecosystem types on the properties evaluated. A gap analysis was conducted using vegetation association information to determine changes in the level of representation of ecosystems already within the reserve system or to identify ecosystems not currently represented. Data showing current levels and projected levels (i.e. following reservation of the purchased former pastoral leases) of representation of vegetation associations in the GMS area (comprising the Gascoyne, Murchison, Yalgoo and Carnarvon Bioregions) are at Attachment 16.

Other factors considered included land systems mapping; special features (e.g. riverine systems, ranges, springs); biological survey information; presence of threatened species and ecological communities and ecosystems having special value; habitat condition and quality; threatening processes (e.g. fire, overgrazing, feral animals); boundary to area ratio; shape of the land area; presence and condition of infrastructure; and potential management challenges.

Pastoral land containing high diversity which was in relatively good condition as identified in Range Condition Reports prepared by DAFWA and which satisfied the management criteria were prioritised for purchase.

Negotiations over purchases were undertaken in accordance with government property acquisition guidelines and legislative requirements (LAA and CALM Act) following valuation by the government's property valuation team (at that stage through the Valuer General's Office [VGO]). Recommendations for purchase required endorsement by DPaW's (CALM's) CEO, approval by the Pastoral Lands Board and approval from the Minister for the Environment.

An example of a typical report prepared to guide purchase decisions is at Attachment 17 (Lorna Glen).

During the life of the GMS, roughly 70 per cent of leaseholders in the strategy area approached DPaW (CALM) to discuss the opportunity to sell part or their entire lease. Many properties were not pursued due to the asking price (well above VGO valuation), condition of property, or a combination of these and other issues including unacceptable conditions of sale.

Although the funding for the GMS has been fully expended and the property acquisition program wound down, DPaW still receives approaches from lessees wishing to sell their leases.

It should be noted that consistent with the spirit of the GMS, the department endeavoured to negotiate outcomes that were reasonable and flexible for vendors wishing to exit the pastoral industry, including providing the opportunity for lessees to stay on in tenancy or caretaker roles on properties following acquisition.

Where previous lessees have not remained on the property, and where it is strategically and financially viable to do so, caretakers or tenants have been maintained on properties to look after infrastructure and/or provide a range of services on a contract basis.

Where purchased properties were able to be aggregated to meet the objective of adequate size, this has been pursued. An area of 500,000 hectares has been generally identified in international literature as approaching a size that supports self-sustaining ecosystems, depending on condition and land configuration, and this figure was used as a guide in reserve design. This is demonstrated in the aggregation of properties in the Mt Augustus and Karara areas.

Purchase of part properties has assisted with property adjustment and boundary rationalisation, with benefits to pastoralists wishing to remove either unproductive or difficult-to-manage areas from some leases. Examples include the purchase of parts of eight leases surrounding the Kennedy Range National Park, and parts of Dalgety Downs and Mt Phillip for addition to Mt Augustus National Park.

Leases purchased

DPaW is currently managing 35 whole former pastoral leases and parts of a further 26 leases state-wide, with a total area of 6.2 million hectares, which have been acquired for addition to the conservation reserve system. In addition, there are some former leases which have already been reserved, such as Cane River Conservation Park in the Pilbara and Dirk Hartog Island National Park in Shark Bay.

The unreserved leases are listed in the table at Attachment 18 and a map showing these areas is at Attachment 19.

Management following purchase

Following their acquisition for conservation, properties were destocked by the lessee as a condition of sale.

Destocking generally took anywhere from one to three years based on stock numbers, size of property and prevailing weather conditions. Until agreed destocking arrangements were completed, the property was still effectively managed as a pastoral lease while the management regime was in transition. Once destocking was completed, DPaW took full control of all future activities. These included:

- neighbour liaison;
- closure of artificial waters including dams, bores and wells (except for strategically retained waters for feral animal control and fire);
- fencing;
- access (public and management);
- infrastructure maintenance including homesteads;
- protection of cultural values;
- Indigenous liaison;
- biological survey;

- feral animal control;
- dingo and wild dog control;
- weed control;
- condition monitoring;
- kangaroo control; and
- research and survey.

The former Lorna Glen and Earraheedy lease areas provide an example of how all these issues have been addressed. The properties have been destocked and fenced, and are now the focus of a major ecological recovery project incorporating significant Aboriginal involvement. The project is described in the DPaW's 2007 publication *Operation Rangelands Restoration: A 2020 Vision* at Attachment 20.

Similarly, the management of the additions to the Kennedy Range National Park is set out in the *Kennedy Range National Park and Proposed Additions Management Plan 2008* at Attachment 21.

Examples of successful former pastoral lease management for conservation

There are many examples of key parks and reserves in WA (and nationally) that were previously pastoral leases. These include Wanjarri Nature Reserve in the north-east Goldfields, which was the first conservation reserve created from a purchased pastoral lease (see the 1991 *Landscape* article at Attachment 22 titled *Wanjarri – Conservation in the Pastoral Lands*) and Francois Peron National Park in the Shark Bay World Heritage Property. The national park was part of the Peron pastoral lease purchased by the State Government in 1991. It is now a popular four-wheel drive camping destination and features superb scenery, wildlife and wilderness experience. It is a remarkable demonstration of the recovery of vegetation and wildlife with the park and adjacent areas being the focus of Project Eden, an internationally renowned wildlife reconstruction project that has seen the previously locally extinct malleefowl and bilby successfully re-established.

Cape Range National Park, a gateway to the Ningaloo Reef, Millstream-Chichester National Park in the Pilbara and Mt Augustus National Park are also examples of former pastoral leases that have been developed as tourist destinations and contribute significantly to regional economies.

3. TENURE AND LAND USE

Tenure

As the pastoral properties were not run as commercial pastoral operations after acquisition, they did not comply with the pastoral lease provisions of the LAA. Accordingly, the leases were surrendered at purchase, and the areas reverted to unallocated Crown land (UCL).

Pending their formal reservation under the LAA, the former pastoral leases are being managed under a Memorandum of Understanding between DPaW and the former Department for Planning and Infrastructure (now the Department of Lands [DoL]), in line with the objectives of their proposed reserve categories, and in accordance with Interim Management Guidelines (IMGs) that have been prepared for individual properties. The IMGs identify the key issues requiring management in the interim period until a formal area management plan is prepared, and contain work programs and budgets. As an example, a copy of the IMGs for the former Earraheedy lease is at Attachment 23.

It should be noted that on 1 July 2003 DPaW (then CALM) assumed on-ground management responsibility for fire preparedness and pest animal and weed control on approximately 89 million hectares of UCL and unmanaged reserves across the state that fall outside the Perth

metropolitan area and townsites. Those partial management responsibilities were transferred from the then Department for Planning and Infrastructure. References to management activities in this submission apply to the UCL which was formerly held under pastoral lease, rather than the state-wide UCL for which partial management functions were transferred in 2003.

In September 2007 the then government approved the reservation of almost half of the purchased whole and part former leases (excluding some specified advanced resource development projects) covering about 2.7 million hectares, mainly as unclassified conservation parks. A media statement and fact sheet released at that time are at Attachment 24. Of the properties contained in that package, the purchased properties surrounding the Kennedy Range National Park were recommended for addition to the park. The land category of conservation park was put forward by DPaW and endorsed by Government for the remaining former leases because it provides for multiple uses including protection of nature conservation values, sustainable recreation and tourism and access for exploration and mining (subject to environmental assessment).

The reserves have not been created to date. In line with reservation procedures adopted by DoL, support from stakeholders including the Department of Mines and Petroleum (DMP), local government authorities and water agencies is required before reservation occurs.

As the previous tenure (grant of pastoral lease) did not extinguish native title, the creation of the reserves under the LAA will constitute future acts and the provisions of the Commonwealth *Native Title Act 1993* (NTA) need to be followed. The preferred course is through the negotiation of indigenous land use agreements (ILUA) with the relevant native title holders or registered claimants. Native title aspects of reserve creation are also normally handled by DoL. However, in recognition of the extent of the work required, DPaW has employed a Native Title Project Officer to collaborate with DoL to negotiate the ILUAs.

The remaining purchased properties also require consultation with relevant parties, particularly DMP and native title representative bodies.

DPaW is continuing efforts to enable the appropriate categories of reserves to be created. Given the purpose for which the land was purchased, and that the Commonwealth government has been a significant partner in the process with financial contributions of either 2:1 or 1:1 for individual property purchases, it is considered inappropriate for these areas to be retained as UCL, without secure tenure and the ability to apply the CALM Act and Regulations. The State has agreements with the Commonwealth government to reserve the co-funded properties in a timely manner.

Native title and Aboriginal joint management arrangements

There is significant interest in these properties on the part of native title claimant groups and traditional owners and users of the lands. While the extent of connection and potential native title rights is variable across these lands, there has been some involvement with interested parties, particularly in DPaW's Goldfields Region.

Recent amendments to the CALM Act and the *Wildlife Conservation Act 1950* enable joint management of lands and waters between DPaW and Aboriginal people.

Rangelands reform

In May 2011, DPaW (then DEC) provided comments on the *Rangelands Tenure Options* discussion paper developed by the then Department of Regional Development and Lands. The department's response concluded as follows:

DEC considers there are opportunities for rangelands reform that will provide for both improved outcomes for lessees and for the public of Western Australia and that the

discussion paper has identified some of these. While the paper has focussed on the opportunities that reforms may give to lessees in terms of better security of tenure and a broader range of activities that may enhance profitability and therefore the sustainability of their endeavours, there are opportunities to build into the reforms a greater focus on rangeland recovery in order to better protect the public assets covered by Crown leases in the rangelands.

Recommendation 1

DEC supports the concept of a rangelands lease, particularly a lease that provides for conservation management by private conservation groups or individuals or for mining/resources companies, as an alternative to pastoral lease tenure.

Recommendation 2

Tenure reform should include, as a key requirement, that pastoral and rangelands leases are managed on an ecologically sustainable basis.

Recommendation 3

In expanding the range of management purposes for former pastoral lease areas, new initiatives for binding conservation management agreements or rangeland resource condition enhancement agreements, as well as non-binding agreements, should be developed to provide encouragement to lessees and suitable protection and recognition for lessee commitments and achievements in these areas.

Recommendation 4

In determining the timeframe for a new pastoral or rangelands lease, consideration should be given to the leaseholder's commitments and performance in terms of protection and restoration of rangeland resource condition, with longer leases to be available to lessees who have agreed, under binding agreements, to manage the lease area, or key components of the lease area, for natural resource condition enhancement.

Recommendation 5

As a general rule, rights of public access across rangelands leases should be retained as is currently the case for pastoral leases, with consideration given to formal protection of high value public access routes.

4. ECONOMICS AND INDUSTRY STANDING COMMITTEE INQUIRY

In March 2010 the Economics and Industry Standing Committee of the Western Australian Legislative Assembly resolved to inquire into and report on DPaW's (then DEC's) management of former pastoral leases.

The Committee's Terms of Reference were to investigate:

DEC's management of former pastoral leases, in particular, the Committee will investigate DEC's:

- 1. management of pest animals and weeds;*
- 2. preservation of pastoral heritage;*
- 3. opportunities for improved management; and*
- 4. consideration of the economic potential of non-pastoral uses for this land.*

The Committee's report, tabled in the Legislative Assembly on 19 August 2010 (Attachment 25 made 15 findings and 19 recommendations. The government's November 2010 response to the report's recommendations is at Attachment 26.

In April 2010, DPaW (then DEC) released two detailed reports into aspects of the management of former pastoral leases. *Management of water points on former pastoral leases by the Department of Environment and Conservation* is at Attachment 27. *Efficiency of the Department of Environment and Conservation's aerial pest management programs on former pastoral leases* is at Attachment 28.

DPaW's approach to each of the issues in the Economics and Industry Standing Committee's Terms of Reference is summarised in the following sections.

5. STRATEGIC PLANNING

DPaW is currently preparing a strategic plan to guide management of the former pastoral properties in the southern rangelands over the next ten years. The finalised strategic plan will identify the values and issues to be managed and set clear priorities so that resources can be directed to achieving agreed objectives.

To assist with formulating strategic approaches to management of the properties, they have been grouped into 10 "blocks", 6 in DPaW's Midwest Region and 4 in the Goldfields Region as indicated in the map at Attachment 29.

Stakeholder engagement

In association with the strategic planning process, a range of stakeholder engagement activities is taking place. Three meetings with neighbours to the former pastoral properties have been held to date and more are planned (see Outcome Statements for the 3 meetings at Attachments 30, 31 and 32).

Property block	Date	Neighbours in attendance
Muggon Block	29-30 August 2012	16
Karara Block	1 November 2012	17
Doolgunna-Mooloogool Block	16 April 2013	8

A meeting with neighbours to the Greater Mt Augustus Block is in the planning phase. In addition to the more formal meetings, DPaW staff and property managers maintain personal contact with neighbours when opportunities present.

DPaW has also approached key stakeholder bodies seeking input to the strategic planning processes. Contact has been made with the following stakeholder organisations and meetings are being held in this context as the stakeholders are available.

Pastoral stakeholders

- Pastoralists and Graziers Association
- WA Farmers
- Pastoral Lands Board

Mineral industry stakeholders

- Chamber of Minerals and Energy
- Association of Mining and Exploration Companies
- Amalgamated Prospectors and Leaseholders Association

Conservation groups

- Conservation Council of WA
- Australian Wildlife Conservancy

- Bush Heritage Australia

Natural resource management groups

- Rangelands Natural Resource Management Coordinating Group
- Northern Agricultural Catchments Council

Government agencies

- Department of Regional Development and Lands

Native title representative bodies

- South West Aboriginal Land and Sea Council
- Yamatji Marlpa Aboriginal Corporation
- Central Desert Native Title Services
- Goldfields Land and Sea Council

Heritage bodies

- The Heritage Council of WA.

A background paper on former pastoral properties in the southern rangelands prepared to facilitate discussions with stakeholders is at Attachment 33. It is intended that a draft strategic plan for these properties will be released for public comment.

6. PROPERTY MANAGEMENT

Management of pest animals and weeds

DPaW is undertaking a range of initiatives to help restore the acquired rangeland areas that have been degraded by over 100 years of grazing by domestic livestock, the persistence of feral animals (including negative impacts of grazing and predation by cats and foxes), and altered fire regimes. In addition to the grazing impacts of introduced species such as sheep, cattle and goats, the development of artificial waters and the control of dingoes and wild dogs have led to increased kangaroo numbers, which has exacerbated the impact of grazing on vegetation.

As part of the process of purchasing former pastoral leases and establishing a conservation management program, DPaW routinely prepares IMGs for each purchased area. These provide the framework for management intervention, including feral animal and weed control and maintenance of former pastoral infrastructure. DPaW has implemented programs for the removal of domestic and feral grazing animals from acquired pastoral properties, and in some instances has also pursued a reduction in artificially high kangaroo numbers. The general intent is to return the land to a pre-pastoral grazing regime supporting natural populations of fauna based on available natural waters. Man-made water sources are progressively closed to discourage domestic and feral animals. Water closures are carefully timed to minimise impacts on animals and to ensure that DPaW meets its responsibilities under the *Animal Welfare Act 2002*.

Management of pest animals and weeds is also addressed in DPaW's Regional Nature Conservation Service Plans. As an example, DPaW's Midwest Nature Conservation Service Plan 2009-2014 is at Attachment 34.

Wild dogs

Distribution and severity of impact

Wild dogs include a mix of pure bred dingo and hybrids of various local populations of escaped domestic dogs. Regardless of their origin, wild dogs have a significant impact on domestic livestock operations on pastoral enterprises, and particularly so in sheep grazing areas.

Anecdotally, the rangelands population of wild dogs is highest in far eastern pastoral areas and generally declines towards the south and west, although populations are highly variable.

Seasonal factors have a strong influence on the distribution of wild dogs, as animals tend to establish in areas with persistent kangaroo populations, which also vary according to season. Since the late 1990s, wild dogs have become more widespread and persistent in southern shires dominated by sheep enterprises, which are most susceptible to wild dog impacts. In recent years, wild dog activity has been recorded as far west and south as Northampton and the eastern Wheatbelt inside the State Barrier Fence.

Wild dogs are widespread and abundant on pastoral and DPaW-managed properties in the eastern Goldfields and across the north of the Gascoyne River catchment (Shires of Meekatharra, Upper Gascoyne and Carnarvon). DPaW properties in the southern parts of the rangelands adjacent to the agricultural areas have consistently recorded negligible wild dog activity.

Control programs

DPaW is committed to reducing the impacts of wild dogs on the neighbouring pastoral industry as stated in its 2007 *Good Neighbour Policy* (copy at Attachment 35) and endorses the *Western Australian Wild Dog Management Strategy 2005* (Attachment 36). The strategy has a focus on intensive control in areas where sheep are being grazed and the pastoralists involved are also undertaking dog control, through a system of buffers across adjacent properties (including former pastoral leases managed by DPaW). There is an explicit commitment by DPaW to carry out vertebrate and weed pest control programs in collaboration with adjoining landholders. The department participates in wild dog control through joint 1080 baiting programs in its Pilbara, Midwest and Goldfields regions. These programs are conducted twice yearly to coincide with wild dog breeding cycles and are coordinated by DAFWA. Input to these programs includes financial and practical assistance in the form of bait preparation and distribution by DPaW operations staff.

Staff from all three DPaW regions (Pilbara, Midwest and Goldfields) participate in the planning for control programs through involvement in the joint industry-DAFWA managed Recognised Biosecurity Groups (RBG), incorporated bodies charged with administering control programs under the authority of the *Biosecurity and Agriculture Management Act 2007*. These bodies manage funds received from industry levies and matching government funds to administer control programs for all declared species and are currently transitioning to self-management. While the State Government is not subject to levies, regional DPaW staff attend planning meetings as observers to contribute to the budget process where programs include DPaW-managed former pastoral land and UCL. Relationships between DPaW and these committees are generally positive and constructive. Control programs are supported financially by DPaW through a cost recovery basis for work carried out on DPaW-managed land in addition to labour inputs provided by DPaW staff.

DPaW's Midwest Region has signed MoUs with the Meekatharra and Carnarvon Rangelands Biosecurity Associations for the management of wild dogs (see example of an MoU at Attachment 37). DPaW also responds where necessary to specific local wild dog impacts on neighbouring stations through reactive baiting, trapping and shooting programs.

Removal statistics

Quantifying wild dog removal from baiting programs (the primary control measure) is highly problematic because of the scale of baiting (hundreds of thousands of baits distributed over millions of hectares) and the nature of the toxin, which means that a baited animal may move a considerable distance from where it took a bait to where it dies. Only subjective measures of effectiveness are possible after a program is carried out, and usually by recording absence of dog tracks where they had been previously noted, although such data are not consistently

available. Where contract doggers operate, statistics are usually collected by the group dogging coordinator for dogs trapped or shot. These are available in reports by the respective RBGs.

Expenditure

Within the context of the MoUs with the Meekatharra and Carnarvon RBGs, DPaW's budget for wild dog control in the Gascoyne Murchison rangelands in 2012-13 was \$92,000. In the Goldfields Region, approximately \$60,000 was spent on control of wild dogs on DPaW-managed former pastoral properties in 2012-13. DPaW also conducts intensive dog and cat baiting in areas that are the focus of major recovery operations, including Peron Peninsula and the former Lorna Glen and Earahedy pastoral leases under separate funding.

The State Government has allocated \$6 million for wild dog control over 5 years under the Royalties for Regions program. DPaW continues to work in conjunction with RBGs on wild dog control programs.

Feral goats

Distribution and severity of impact

Feral goats are widely distributed across the southern rangelands but their numbers have declined due to control programs, removal of artificial waters, drought and wild dog predation. Goats have been well established throughout the shrub-dominated parts of the rangelands since the early 1900s and have been subject to various government supported programs to reduce their impacts. The Feral Goat Eradication Campaign (1991–1996) removed approximately 1.6 million goats, yet following its termination, numbers soon increased to pre-control population levels.

The status of goats was changed from prohibited to authorised stock (in certain circumstances) in 2002, however the commercial market appears to have declined due to lower goat numbers and reductions in live exports.

It has become difficult during this period for DPaW to engage neighbouring pastoralists in effective feral goat eradication. This cycle of variable control will continue while commercialisation is a primary tool for control. Goats will continue to move from pastoral to DPaW-managed lands in the absence of goat-proof fencing, especially when better grazing exists on DPaW-managed lands and there is sufficient water available.

Impacts of feral goats are most obvious in the preferred campsites and refuge areas such as breakaways, granite inselbergs and in dense thickets on mulga washplains. The animals have a strong hierarchy of forage preference and will exert profound impacts on most preferred species, in some cases to the point of local extinction. Numerous examples of this extreme impact can be seen across the rangelands, where sensitive and productive breakaway surrounds have been stripped of all palatable perennial plant species, and extensive erosion has occurred as a consequence.

Feral goats are widespread in the southern rangelands across all land tenures. On DPaW-managed properties the ultimate objective is complete removal, and considerable progress is being made in reducing populations. Goat populations are much reduced on DPaW-managed properties in contrast to active goat farming practices which are occurring on many pastoral leases.

Control methods and programs

DPaW primarily uses trapping, ground shooting and aerial shooting programs for control of goats. Mustering, exclusion fencing and closure of artificial waters have also been used to augment goat control programs.

These programs are generally undertaken through contractual arrangements with caretakers, neighbours or private individuals to enable mustering, trapping and removal of goats. DPaW encourages contractors to exert maximum goat control efforts during the contract term, and prohibits the practice of building up stock numbers by releasing juvenile and breeding animals.

Trapping

The management and removal of herbivores through the use of total grazing management trap yards on permanent water is the most efficient means available in the rangelands. Trap yards are used on most properties that contain goats.

Ground shooting

In areas of rough terrain where mustering and normal vehicle access is not possible, ground shooting programs have been, and will continue to be, an effective method used to control small numbers of feral goats. This approach is not effective for larger mobs, as animals disperse rapidly. In cases where large numbers remain in these environments, mustering and/or aerial shooting remain the most effective control methods.

Aerial shooting

Aerial shooting of feral goats from a helicopter is used in inaccessible areas, and to manage low density populations or remove survivors from other control programs. It has also been used for broad scale population reductions when prices for goats are low and mustering is uneconomic.

Historically (1991-96), aerial shooting was extensively carried out by the Agriculture Protection Board (APB) across all rangelands tenures, including conservation estate (in particular Muggon, Kalbarri, Cape Range and Kennedy Ranges). Annual shooting programs are conducted in Kalbarri National Park and on Dirk Hartog Island. Goat numbers are now at extremely low levels in the Kennedy Range National Park and no aerial shooting is required at this time.

In April 2010, DPaW (then DEC) released a detailed report titled *Efficiency of the Department of Environment and Conservation's aerial pest management programs on former pastoral leases* which is at Attachment 28.

Mustering

Where goats persist in significant and commercially viable numbers, neighbouring pastoralists are encouraged to aerial muster across DPaW-managed lands when they muster on their properties.

Exclusion fencing

The use of exclusion fencing is an effective management strategy. However, in large areas fencing is expensive to construct and maintain. Fences can be used to restrict access to sensitive areas, and to exclude goats from some water points to concentrate them at others where they can be trapped. Fences have also been used to break up large areas into manageable blocks during eradication programs.

The former Burnerbinmah pastoral lease was purchased in 1995 by DPaW (CALM) as part of the Sandalwood Conservation and Regeneration Project and has been subject to persistent numbers of goats which have prevented the desired level of vegetation recovery. In 2008, 140 kilometres of goat-proof boundary fencing was constructed around Burnerbinmah, funded by DPaW. The cost of approximately \$520,000 to protect an area of almost 60,000 hectares was initially expensive, but should prove effective in the long term by preventing reinvasion from neighbouring properties.

As Burnerbinmah is one of a number of adjoining properties purchased for conservation, extension of the goat-proof fence to adjoining property boundaries is under consideration for the future. DPaW is assessing the value of the goat-proof fencing of Burnerbinmah in terms of habitat recovery and will compare this with ongoing goat control costs in nearby former pastoral leases that are not goat-proof fenced, to determine the cost effectiveness of this approach

Closure of artificial waters

Goats require a permanent source of water to survive in the rangelands, unlike many drought-adapted native fauna species that can survive on the water they obtain from food, dewfall and scattered, naturally occurring water sources. Goat populations in the semi-arid rangelands survive by using artificial stock watering points and natural permanent or semi-permanent pools, or other water catchments such as depressions and pits in previously mined areas where these exist.

Goat control on DPaW-managed properties is assisted by the decommissioning of windmills to reduce the availability of artificial permanent water. Goats do persist on these properties after windmill decommissioning, however the overall population is much reduced. Goat eradication is only possible where programs extend across extensive areas unless, in the case of DPaW-managed properties, DPaW upgrades fences to goat-proof standard. DPaW has in the past provided neighbouring properties with trap yards to assist with goat removal from boundary waters. The preferred option is to encourage and assist neighbours to relocate their water points away from the boundary.

In April 2010, DPaW (then DEC) released a detailed report titled *Management of water points on former pastoral leases by the Department of Environment and Conservation* which is at Attachment 27.

Removal statistics

In the Midwest Region about 100,000 goats have been removed from former pastoral leases since DPaW commenced management of these areas. Turnoff from these properties was high in the first few years of DPaW management, but as artificial waters were gradually closed, overall populations on DPaW-managed lands have decreased, resulting in a correspondingly lower turnoff in recent years.

Goats are present on some Goldfields and Pilbara Region properties, but numbers are generally low and have diminished significantly in recent years as wild dog numbers have generally increased in these areas.

Camels

Distribution and severity of impact

Found mostly in the far eastern extent of the pastoral areas and adjacent desert country UCL, camels are highly nomadic and their distribution is strongly influenced by seasonal conditions. Their effects are generally observed on water infrastructure, fences, waterholes and vegetation in areas where they camp in dense watercourses or thickets.

Variable but generally low numbers of camels are present year round on two properties in the Midwest (Mooloogool and Doolgunna), two in the Goldfields (Earaheedy and Lorna Glen) and on the boundary of the pastoral lands and the desert interior in the Pilbara region. Other small populations occur in the Cobra/Waldburg area near Mt Augustus and also in the former Tamala lease area which adjoins the Zuytdorp Nature Reserve in Shark Bay District. Their numbers are generally low and their effects are limited to vegetation damage in creek lines and occasional breaching of boundary fences. There are increasing numbers of camels entering the Lorna Glen and Earahedy properties in the Goldfields from pastoral country to the north and east. These

animals are causing damage to fences. Low numbers have also been observed on other Goldfields properties.

Control programs and removal statistics

Camel control work has been conducted by DAFWA under the federally-funded Australian Feral Camel Management Project. DPaW has carried out some vegetation recovery monitoring in conjunction with this project.

Since 2010, ground shooting has removed an average of 20 camels per year from the Earraheedy and Lorna Glen properties. An aerial shoot is planned in this area for October 2013 as part of the national control program. During 2012, 90 camels were shot on Meentheena in the Pilbara Region.

Donkeys

Distribution and severity of impact

Significant numbers of donkeys occur on Meentheena. Donkeys occur in varying numbers across properties in the Midwest region and opportunistic shooting is used for control where required. DPaW has commenced discussions with affected RBGs on the possibility of a joint control program using aerial shooting.

Control programs

In the Pilbara Region, DPaW contributes funds for control to the Pilbara RBG which now manages a pest animal program undertaken by DAFWA. In the Midwest, aerial donkey shooting was carried out by the APB prior to DPaW's purchase of the leases and further aerial shooting is planned for the future. Ground shooting programs have been conducted on some properties. Low numbers of donkeys occur in the Goldfields are controlled by ground shooting.

Removal statistics

During 2012, 124 donkeys were shot on Meentheena. Opportunistic shooting of resident populations on other properties has also removed some animals.

Boundary fencing

Control of straying stock is fundamental to DPaW's objectives for conservation management of former pastoral leases. Apart from the extensive spinifex sandplain and stony uplands, very few areas in the pastoral rangelands are in good condition due to the long history of grazing pressure.

Since the commencement of the GMS acquisition program in 1998, DPaW has, in partnership with neighbouring pastoralists, constructed over 1,300 kilometres of boundary fencing. Each of these projects has been carried out on a 50:50 basis with neighbours. Arrangements for construction vary, including fences built by the neighbouring pastoralist with materials provided by DPaW or the neighbour and DPaW building half the fence each. Alternatively, projects may be carried out completely by the neighbour who then seeks reimbursement from DPaW, or DPaW will manage the entire project and seek reimbursement from the neighbour. In some cases, where the neighbouring property is owned by a mining company, they may build fences at their own cost.

Stock management practices vary throughout the rangelands. Properties in the northern parts of the southern rangelands (e.g. Shires of Meekatharra, Upper Gascoyne, Wiluna, and East Pilbara) are often open range operations and lessees do not consider fencing necessary to their enterprise. It is sometimes difficult to achieve cooperation from neighbouring pastoralists in

boundary fencing programs. In some cases neighbouring stock persistently graze on conservation reserves or former pastoral leases managed for conservation. DPaW routinely liaises with neighbours requesting mustering of straying stock where they are a problem on former pastoral leases.

Fencing projects may be initiated by either party and are factored into DPaW's planning and budgeting processes. In recent years there have been a number of instances where DPaW has secured funding for agreed boundary fencing programs, but individual pastoralists have subsequently been unable to provide their contribution. This is understandable given the resources available to some pastoralists, but has significant implications for DPaW's planning and budgeting processes.

Closure of artificial water sources

Grazing animals in the rangelands (stock, feral and native) are highly water dependent and, as a conservation management procedure to reduce grazing pressure, it is necessary to phase out artificial water points in a systematic manner that avoids stress to dependant animals and to ensure that DPaW meets its responsibilities under the Animal Welfare Act. For the welfare of both native and domestic animals, water closures are conducted during seasons where there is abundant surface water, in order to enable animals to disperse to natural surface-water areas. Where necessary, controlled animal culling programs (feral animals and/or kangaroos) have been undertaken at the same time as artificial waters are progressively closed, as an effective means of removing excess grazing pressure.

Some species of native and non-native animals seek out areas of pastoral infrastructure such as sheds and buildings for shade during hot periods and may also return to these areas if they were once water points. In the absence of shade provided by pastoral infrastructure, euros in particular are often found deceased in caves and other shade areas in periods of drought. An absence of effective fencing in many pastoral areas means that native and non-native animals will move large distances. Culling programs can be rendered ineffective as animals move into abandoned homestead precinct areas or return to old watering points.

Weeds

Weed infestation in the WA rangelands is primarily associated with species that have been introduced through pastoral activities and hence there are many species that are widespread as a result of the long period of pastoralism. Some of these species, such as ruby dock and buffel grass, are very invasive and represent significant threats to biodiversity values.

Following the removal of livestock there are many species which respond vigorously, particularly in heavily disturbed sites such as near water points and old holding yards. Species such as double gee are treated in these areas.

DPaW currently undertakes a major control program on Paterson's curse in the Lochada/Karara area and treats Bathurst burr on Credo and cacti, melon and double gee infestations at Lorna Glen. There has also been removal of tamarisk from some homestead areas. DPaW also works with RBGs on joint weed control programs and carries some work to control environmental weeds.

Species of major concern to the industry, such as mesquite and parkinsonia, are currently not a widespread issue on DPaW-managed areas although some infestations are located on nearby leases.

7. PRESERVATION OF PASTORAL HERITAGE

All former pastoral leases purchased by DPaW contain some evidence of historical pastoral activity including homesteads, other built infrastructure (such as shearing sheds, shearers' quarters, storage sheds and workshops), fences, yards, dams, wells, mills, tanks, access roads/tracks, equipment and implements, as well as historical records.

Whilst acquiring this assemblage of old, as well as more recent, evidence of the difficulties, ingenuity and resilience of the industry in the face of a challenging living environment was not the primary purpose of purchase of these lands, DPaW is nevertheless acutely aware of the need to protect and conserve the state's cultural heritage.

Heritage legislation and responsibilities

The variety of heritage values in the rangelands poses a challenge for management. It is recognised that the current knowledge, available resources and coordination of support for the management of cultural heritage, both on and off DPaW-managed lands in the rangelands, is inadequate.

DPaW has a primary focus on natural heritage and biodiversity conservation consistent with fulfilling its statutory functions. The department's staffing and skills reflect these priorities, however a broad range of cultural heritage matters faces the department in or relating to the areas it manages.

DPaW is aware of its responsibilities under the *Heritage of Western Australia Act 1990* and the relevance of the *Burra Charter* – the Australian (International Council on Monuments and Sites) charter for the conservation of places of cultural significance.

DPaW is also keenly aware of the broader issue of heritage management across the WA rangelands and of the need to have some regional context to the values identified on DPaW-managed lands. DPaW manages only a small proportion of the rangelands and there is ample evidence of examples of heritage values being lost across pastoral rangelands.

Municipal and State Heritage Registers provide guidance on key built infrastructure but they are not exhaustive. The report at Attachment 38, *Inventory of Tourism Assets on Department of Environment and Conservation Rangeland Properties – Gascoyne and Murchison regions, Western Australia* (CRC for Sustainable Tourism, 2008) includes descriptions of infrastructure as well as some other heritage assets on some of the acquired former leases.

Aboriginal heritage

Pastoral leases can contain significant examples of Aboriginal heritage. DPaW also has obligations under the *Aboriginal Heritage Act 1972* and works with local Aboriginal people, native title claimant groups and the Department of Aboriginal Affairs to identify and protect Aboriginal heritage.

Current activities

DPaW considered the implications of the presence of heritage buildings, in particular on leases under consideration for purchase, to avoid where possible the liabilities associated with conservation/maintenance/repair of listed buildings.

In this context DPaW accepted that the old Bangemall Inn on Cobra would require substantial resources for long-term maintenance and has undertaken considerable work on the building.

DPaW has also been active in managing the pastoral heritage in Francois Peron National Park (previously Peron pastoral lease) where the homestead is now used for a range of public activities, and the shearing shed and associated buildings have been interpreted for visitors.

There are a number of management activities occurring across most properties that have the potential to impact on heritage values including:

- boundary fence maintenance and construction;
- removal of internal fencing;
- closure of mills/dams;
- protection of hand-dug wells, stone tanks; and
- retention of old sections of post fencing particularly around yards.

There is a need for further inventory of cultural heritage assets across the lands managed by DPaW to identify the full range of heritage values, as well as a requirement for departmental operational guidelines to manage heritage. DPaW is developing a non-indigenous cultural heritage policy and implementation guidelines which will provide improved guidance for the department in dealing with cultural heritage issues in the rangelands when finalised.

Homesteads

Currently DPaW manages properties containing 23 homesteads and a ranger station. Of these 18 are occupied by staff, tenants or caretakers.

At purchase these homesteads have been of highly variable condition in terms of building construction standards, age and standard of maintenance and services. Almost all have been sub-standard with respect to some or all occupational health and safety standards and electrical, plumbing and sewerage standard requirements. Many have required substantial expenditure to enable DPaW to provide accommodation for tenants or caretakers. Therefore almost all the homesteads that DPaW has been able to retain have required considerable expenditure in restoration or upgrading.

In some instances DPaW has retained former lease buildings for use as general tourist accommodation, such as at Jaurdi, Goongarrie and Mt Elvire. Work has been undertaken on Mt Minnie homestead including renovation of the house, replacement of the roof, upgrade of the power facilities and building of an ablution block and group facilities. In general DPaW has not undertaken restoration of dilapidated former pastoral sheds/buildings or other infrastructure. Many have been beyond repair at lease purchase.

DPaW has removed two homesteads that were occupied at the time of purchase (Pimbee and Kadji Kadji) as these homesteads were not considered to be strategically useful from a management perspective and were of post 1960s construction. An overseer's house was also removed from Mooloogool. Earahedy homestead which was a ruin at time of purchase and had been unoccupied for 40 years, was also demolished due to concerns over visitor safety and the homestead on Black Range was also removed. It is significant that not all pastoral leases or part pastoral leases purchased have had homesteads in use at the time of purchase. It has not been uncommon in the pastoral industry for several pastoral leases to be managed from a single homestead base as the average size of pastoral leases has grown over the past 100 years.

Visitor Safety

By its very nature, much of what constitutes cultural heritage can represent a risk to visitors who may wish to investigate and explore old infrastructure. DPaW has an active Visitor Risk Management program and has been addressing these matters with current resources and in the context of priorities. For instance, old wells and bores have been covered to prevent people and animals from falling into them.

8. OPPORTUNITIES FOR IMPROVED MANAGEMENT

Resourcing

DPaW manages the former pastoral leases in line with the objectives of their proposed tenure categories as part of the state's conservation reserve system (primarily proposed as conservation park). This has required a focus on priorities for allocation of staff resources and expenditure. In addition to specific budget allocations, DPaW has applied extra resources to the management of acquired properties through reallocation of existing resources.

In 2012-13 DPaW spent an estimated \$2.72 million on the former leases state-wide on a variety of projects including boundary fencing, infrastructure upgrades, and control of weeds, feral animals and wild dogs.

Priority areas for improved management are:

- fencing;
- tourism;
- Aboriginal involvement;
- fire;
- off reserve ecologically sustainable management;
- partnerships
- rehabilitation;
- mustering and trapping of feral animals;
- dingo and wild dog control; and
- project management.

Fencing

As pastoral productivity and capacity have decreased along with declining wool and meat prices, there has been a growing dependence among pastoralists on off-property employment in order to maintain their properties. As a result, fencing is an area where progress has been constrained by the ability of DPaW neighbours to contribute their 50 per cent to costs of construction (either financial or in-kind contribution). In addition to the reduced capacity across the industry, there has been a continuing deterioration of fencing infrastructure through the 1980s and 1990s, particularly with the shift to cattle production, to the point where it is now a significant task to upgrade, particularly adjoining some DPaW properties.

Whilst adjoining pastoralists often come to working arrangements to deal with straying stock, this matter represents a significant issue for DPaW as grazing is inconsistent with the objective of conservation management. This is exacerbated where DPaW has allocated funding for boundary fencing, but the pastoralist has not been in a position to contribute on a 50:50 basis.

Tourism

A section on tourism development opportunities and activities follows under "Consideration of the economic potential of non-pastoral uses for this land". Development of some targeted tourism opportunities would contribute to a greater DPaW management presence in some areas, and possible increased involvement of neighbours in servicing arrangements.

Aboriginal involvement

Recent amendments to the CALM Act and the *Wildlife Conservation Act 1950* enable Aboriginal people to undertake customary activities on reserves and other DPaW-managed land including former pastoral properties which are formally placed under management through a CALM Act management order. These amendments build on existing entitlements and are in recognition of

Aboriginal people's customary rights and intrinsic connection to the land. The amendments also enable joint management of lands and waters between DPaW and Aboriginal people.

Aboriginal involvement on former leases has generally been limited apart from examples such as the restoration project at Lorna Glen. This is partly a result of the previous lack of a formal framework for this opportunity to be explored and also because this type of engagement requires dedicated resources and commitment to useful and meaningful outcomes.

Aboriginal involvement provides the opportunity for reconnection of Aboriginal people with the land and for the application of traditional knowledge to management programs. The potential exists for some employment opportunities to be developed through these arrangements.

Consultation with traditional owners is often intensive, of long duration and needs to be supported by a commitment to developing opportunities for direct involvement. Therefore, the resources required for this sort of commitment should not be under-estimated, especially where it involves training and potential employment opportunities for people to work on the land. The Lorna Glen example demonstrates that positive results are achievable as long as resources can be found.

Fire

Current fire management on former pastoral leases varies with the extent of previous property development such as access and firebreaks, as well as ground cover and fuel. With the passage of time, fuel loads will increase and some management intervention will be required. Former leases are now incorporated into DPaW's fire planning processes to ensure that changing conditions and management requirements are identified and considered.

In addition to risk mitigation and the protection of life and property, future fire management on former pastoral leases will need to reflect a change of focus with an emphasis on biodiversity conservation, rather than pastoral production. For example, in highly flammable hummock grassland (spinifex) dominated landscapes, many pastoralists use fire to improve pasture quality, which diminishes with age, while long unburnt spinifex can have significant habitat value for conservation purposes. Managing for multiple outcomes including biodiversity in the context of diverse regional land uses requires DPaW to apply a number of different strategies and approaches supported by adequate resources.

With changes to the grazing industry such as diversification, and the purchase of many pastoral leases by mining companies, some neighbouring properties may also have less grazing pressure and improved vegetation cover. Such changes to the ownership and use of pastoral leases are likely to further affect the size and composition of the regional population and property-based communities. There are now a number of fires in pastoral areas that have traditionally been managed via Bush Fire Brigades and local pastoral enterprises, that now need to be managed by the Fire and Emergency Services Authority with the assistance of DPaW.

As a land manager, DPaW's involvement in fire management in these areas can bring significant expertise in planning, community engagement, prescribed burning and bushfire suppression. DPaW has carried out fire preparedness work on some properties such as Giralia where \$40,000 has been spent on upgrading firebreaks and strategic access and some prescribed burns have been conducted. Consideration could also be given to recognising the role that pastoral enterprises undertake in fire management on behalf of the state. Furthermore, the need to identify and develop strategic firebreaks and establish fire mosaics to break up the country should be investigated. As a result, fire management to manage for conservation and to reduce the impact of bushfires on traditional pastoral enterprises and other land uses is an emerging issue in the rangelands.

Off-reserve ecologically sustainable management

DPaW acknowledges the need for cooperative management of off-reserve land with conservation value, including other activities such as pest animal and fire management. Progress was made during the GMS in developing a process of engagement with pastoralists that recognised their knowledge and understanding of the land and that promoted an enhanced environmental awareness and a commitment to improving on-ground management. This was termed the Ecological Management Unit ('EMU') project and was trialled over a number of years driven by a small but enthusiastic cross-agency team.

This program was very successful in generating the interest and involvement of land managers in the Murchison but failed to capture the interest of Gascoyne pastoralists.

To be of long-term value, such a program needs to be institutionalised and provided with ongoing resources, as the workforce available on pastoral leases is considerably smaller than in the past, and would need support to achieve on-ground outcomes, rather than just improved awareness.

Partnerships

Working in partnership with neighbours is important for retaining and building relationships. Where possible, DPaW caretakers support neighbours' pastoral activities. There are business partnership opportunities using neighbouring pastoral enterprises and local government authorities as contractors for DPaW on projects such as fencing and machine work (e.g. roads, firebreaks and rehabilitation works).

In addition, community capacity building and support opportunities exist in working together on specific projects or ecologically sustainable management initiatives.

Mining companies are now a major land manager and player in the pastoral rangelands. DPaW is involved with a number of projects with mining interests (e.g. Cliffs Natural Resources in the Mt Manning area and the Geraldton Iron Ore Alliance). The opportunity for long-term projects with regional conservation outcomes is clearly available with major resource development projects that have an extended life. DPaW will continue to seek out these opportunities.

DPaW is also exploring opportunities with educational institutions to use properties that have accommodation options to support study and research activities.

Rehabilitation

Currently, DPaW is managing a number of rehabilitation trials to enhance recovery in areas where there has been severe soil erosion. The wider application of this work, which will be important for long-term recovery of the land, is outside the scope of available resources at this time. However there is opportunity to engage neighbouring pastoral enterprises and traditional owners to assist in the implementation of this rehabilitation work on a contract basis.

Mustering and trapping of feral animals

As noted throughout this submission, long-term feral animal control is a key to effective management of the acquired pastoral leases, through a combination of both DPaW's capacity and the use of contractors such as neighbouring pastoral enterprises. Contractual arrangements need to ensure that all animals that are trapped are removed (rather than underweight animals being released to augment future mustering).

Dingo and wild dog control

Both dingoes and dingo-dog hybrids are declared pests under the *Biosecurity and Agriculture Management Act 2007*. Under this Act, Recognised Biosecurity Groups (RBGs) have replaced Zone Control Authorities in the control of declared animal pests and weeds. Government departments are eligible for associate membership of RBGs in areas where they manage land or conduct significant activities and DPaW works in partnership with RBGs, the Department of Agriculture and Food, shires and landholders in the design and implementation of wild dog control programs. DPaW's approach is to control dingoes and wild dogs wherever they are detrimentally affecting neighbours to DPaW-managed public lands.

Project management

Highly integrated projects such as the ecological restoration of the former Lorna Glen pastoral lease demonstrate how all the elements of former pastoral lease management practices by DPaW can deliver a number of biodiversity and land management outcomes. Destocking, fencing, feral animal control (including cats and foxes), fire management and reintroduction of locally extinct native fauna all undertaken at Lorna Glen in consultation with, and with the involvement of traditional owners, provides a good case study for conservation management. A 2009 *Landscape* article titled *Into the wild; restoring rangelands fauna* describing the project is at Attachment 39.

Monitoring

Monitoring is an essential component of management. In order to evaluate the effectiveness of strategies in achieving the stated objectives, results must be assessed and strategies refined or changed if required. Monitoring design involves a trade-off between sampling effort and available resources. Grazing exclusion plots have been established on three purchased properties in the Midwest Region (Muggon, Woolgorong and Burnerbinmah) and these will provide invaluable on-ground and remotely-sensed recovery and management response information.

The Western Australian Rangeland Monitoring System or "WARMS" provides regional-scale trend assessments of perennial vegetation and soil surface condition. Using a set of representative, point-based sites, change in pastoral rangelands at a broad scale is assessed. All the former pastoral properties have WARMS sites on them with data having been collected for up to 60 years. WARMS is, however, unable to fully describe changes in range condition or to assess biodiversity impacts.

The Pastoral Lands Board is introducing a new system for monitoring rangeland condition which was formerly undertaken by the Department of Agriculture and Food. The new approach will give pastoral lessees direct responsibility for monitoring and reporting on vegetation condition at fixed sites. The new system will become operational from December 2015. There is an opportunity for DPaW to implement the new approach on former pastoral properties to ensure consistency of monitoring across the rangelands and to enable comparisons in management effectiveness. The department will be implementing the new rangeland condition monitoring system on DPaW-managed former pastoral properties.

9. CONSIDERATION OF THE ECONOMIC POTENTIAL OF NON-PASTORAL USES FOR THIS LAND

The former pastoral leases managed by DPaW were purchased by the government for addition to the State's conservation reserve system. This represents a legitimate use for the land that plays a critical role in protecting and conserving a representative sample of WA's flora, fauna, ecosystems (i.e. biodiversity) and landscapes. The properties also contribute to ensuring a level

of resilience in the broader landscape in the face of a changing climate as well as maintaining the opportunities associated with natural resources for the future.

Mining

Mining represents the most significant non-pastoral economic opportunity that can be associated with these lands. Current government policy presents no constraints to exploration and mining activity on the former pastoral leases managed by DPaW. As discussed previously, the recommended tenure of most of these lands is compatible with exploration and mining activity. Not all the purchased lands are prospective but those associated with banded iron formations and greenstones in particular, have been identified as highly prospective.

Considerable environmental damage has occurred on some of these properties as a result of poorly managed exploration programs by a small number of companies. Improved environmental management of exploration activity is strongly supported and recommended by DPaW.

Current arrangements with DMP for notification of mining activity on former leases managed by DPaW do not consistently provide for input by DPaW in setting appropriate conditions for exploration on these lands, as the land is UCL. Improved notification would enable more effective environmental management from the outset of projects.

Tourism

A number of the former leases managed by DPaW clearly have tourism opportunities associated with them. Indeed, these opportunities were identified in the purchase process and examples have been documented in the CRC for Sustainable Tourism's 2008 inventory report at Attachment 38.

Tourism in the rangelands, unless serviced by sealed roads, is normally highly seasonal, being limited by access availability and extreme summer conditions. Tourist station-stay and related activities are offered by a number of pastoral enterprises. Most are only seasonal and contribute a relatively small amount to the overall business.

Due to the low numbers of visitors relative to visitation at key coastal destinations in the state and well serviced inland parks such as Karijini National Park, the priority given by DPaW to the development of visitor infrastructure in the rangelands is generally low at present, although DPaW recognises the potential for this to change over time.

Initial work has been done to provide for low-key, four-wheel drive camping and touring opportunities on many properties including Jaurdi, Mt Elvire, Goongarrie, Lake Mason, Credo, Lorna Glen and Lochada. Other properties are the focus of travellers seeking wildflower viewing and remote camping opportunities, including Kadji Kadji, Warriedar, Karara and Burnerbinmah. DPaW facilitated the licensing by the Department of Lands of a WA Veterans Retreat on the Meentheena property. The retreat is designed to provide "wilderness therapy" opportunities to war and emergency services veterans.

The State Government has allocated \$20 million for the development of low-cost family camping opportunities in the south-west and the Karara Block of properties has been included in the list of areas under consideration. This will provide a model for further recreation developments on other properties.

Planning for visitor services has been broadly conducted for properties in the Goldfields (see DPaW's *Goldfields Parks and Visitor Services Field Visit Report, April 2009* at Attachment 40) and for the Kennedy Range National Park as identified in the approved park management plan at Attachment 21. Recreation master plans have been prepared for the Greater Mt Augustus

Block incorporating Cobra, Waldburg, and parts of Mt Philip and Dalgety Downs (see Attachment 41) and also for the Credo property.

Mt Augustus National Park, formerly a part of Mt Augustus pastoral lease, has a number of developed low-key recreation sites, walk trails and facilities, as outlined in the brochure at Attachment 42.

Currently, tourism services are provided at Cobra (Bangemall Inn) with camping and limited accommodation available. DPaW's long-term vision is that this site will become the portal for access into the western area of the Greater Mt Augustus park and provide information and a range of visitor services, not necessarily in the same manner as currently available.

Requests for resources required to provide visitor infrastructure at sites such as Kennedy Range and Mt Augustus must compete against state-wide high priority sites that currently deal with much larger numbers of visitors. Access to alternate sources of funding could bring forward some of the planned works.

Diversification in the rangelands

Diversification on pastoral leases has been an issue for many years in the industry. As pastoral productivity has decreased along with declining wool and meat prices there has been a growing dependence on off-property employment to maintain viable businesses.

The GMS dedicated considerable resources to investigating the development of new enterprises and industries with regional benefits. These included aquaculture and developing new areas for horticulture. No suitable new enterprises or industries were identified during the process. Most options were constrained by seasonal access, distance from markets, cost of labour and establishment and contract opportunities.

Ongoing management of the former pastoral properties for conservation provides opportunities for a range of contract work for pastoralists. This is already occurring including through machine work for maintenance of roads and tracks, infrastructure maintenance, fencing and feral animal control. Future opportunities include broadscale rehabilitation projects requiring intensive machine and labour components.

Carbon sequestration

The potential for a role for carbon sequestration on pastoral leases is being investigated by a number of organisations around Australia. Recovery of the properties managed by DPaW, particularly in terms of soil restoration and recovery of perennial plants with the capability of significant carbon storage, could provide a model for the future management of pastoral properties generally considered unviable.

Other activities

There are a number of other activities that have been supported on DPaW-managed properties that contribute more to community and social outcomes than being of significant economic potential.

These include significant volunteer and community engagement activities primarily associated with resource inventory (survey), maintenance and recreational activity. For example, DPaW has been strongly supported by BirdLife Australia volunteers undertaking bird surveys on various properties. In addition, the WA Four-Wheel Drive Association, Subaru Four-Wheel Drive Club and Track Care (whose members restored the homestead on Warriedar) have been active in undertaking a range of projects across those properties which they view as of significant value to their members and the broader community, given the limited access on pastoral leases.

A range of other groups, clubs and organisations also visit selected properties for specific purposes.

The potential use of these properties for education and science projects and studies has not been fully explored at this stage, but good opportunities exist.

10. CONCLUSION

DPaW supports an ecologically sustainable pastoral industry that complements the values of a reserve system which is interspersed throughout the pastoral rangelands of the state and helps to deliver regionally sustainable use of the pastoral rangelands resource. If nationally and internationally accepted conservation reservation benchmarks are met, some 83 per cent of the pastoral rangelands will remain available for pastoral enterprise.

The full recovery and restoration of the acquired properties, along with their currently locally extinct fauna in a largely degraded landscape, will take a long period of time, and require dedicated resources to undertake the necessary management. There has already been significant progress in enhancing natural regeneration processes through reduction in the various causes of degradation, particularly overgrazing.

With the continuing decline of the pastoral industry, human resources in the rangelands are under significant pressure. The potential to provide work opportunities associated with the management of the former pastoral leases through caretaking properties and providing a range of other services to support the management of natural resources will be a continuing contribution to the social fabric of the rangelands.

Continued targeted tourism development and management activities associated with land management programs provide an opportunity for pastoralists to provide contract services to the department.

Exploration and mining activity will continue to occur on many of the former pastoral leases. The value of long-term partnerships with mining companies is recognised by DPaW as an opportunity to achieve positive regional outcomes for biodiversity conservation, for the pastoral industry through the diversification of pastoral leases and also for the community in general. Improved opportunities for DPaW to contribute to the setting of appropriate conditions for mining exploration on the former pastoral lease will lead to better relationships with mining companies and improved environmental management.

The fact that these acquired areas remain as UCL is a significant issue for their conservation management and government is progressing this reservation currently. As these areas are not yet conservation reserves, the CALM Act and Regulations cannot be applied to their management. This means that DPaW cannot easily regulate camping, vandalism, theft of former pastoral amenities and equipment, or even direct environmental damage to the former leasehold lands. It is therefore important, to assist in future management of these areas, that they are reserved under a CALM Act tenure that allows them to be managed for conservation and tourism, whilst also allowing for access by the resource sector.

As noted previously in this submission, the previous pastoral lease tenure did not extinguish native title (see *Tenure and land use* section). Therefore, achieving reservation requires the provisions of the Native Title Act to be followed, preferably through the negotiation of ILUAs. Consideration of prospectivity and mining interests is also required in the reservation process.

The Department has previously proposed that the bulk of the areas be created as unclassified conservation parks, which would accommodate exploration and mining activities (subject to

necessary approvals). Resolving the reserve status and creating the reserves will provide DPaW a legal framework within which to carry out its management.

Department of Parks and Wildlife
September 2013

ATTACHMENTS

-
- 1 Commissioner for Soil and Land Conservation's annual report to the Pastoral Lands Board for 2011/12.
 - 2 Conservation Commission submission to the Legislative Assembly Economics and Industry Standing Committee 2010 Inquiry into the Department of Environment and Conservation's Management of Former Pastoral Leases.
 - 3 Map: *Lands and Waters Managed by the Department of Parks and Wildlife 2013* (DPaW, 2013).
 - 4 *Directions for the National Reserve System – A Partnership Approach* (Natural Resource Management Ministerial Council, 2005).
 - 5 *Managing the Rangelands* (WA Government, 1999)
 - 6 *Filling the Gaps: Building a reserve system in the Gascoyne-Murchison region* (DPaW [CALM], LANDSCOPE, Winter 2000).
 - 7 *Establishment of a Comprehensive, Adequate and Representative Terrestrial Conservation Reserve System in Western Australia* (DPaW [CALM], 2003).
 - 8 Map: *Areas presently in formal conservation reserves by bioregional province (as at 2012)* (DPaW, 2010).
 - 9 Map: *Areas in formal conservation reserves by bioregional province when pastoral acquisitions are added (as at 2012)* (DPaW, 2013).
 - 10 Except from *Pastoral Wool Industry Taskforce Report* (1993).
 - 11 Photographs showing the effects of flooding on the landscape during and after a flood (various photographers and dates).
 - 12 Figure 6.2 (*Range contraction: number of species in the pre-European fauna in each bioregion that have contracted from more than 90% of the bioregions that they originally occupied*) and Figure 6.5 (*Attrition of Australia's regional mammal faunas*) from the *Australian Terrestrial Biodiversity Assessment* (Australian Government, 2002).
 - 13 Index map and photographs of rangeland monitoring sites on Lorna Glen (DPaW, 1979, 1989, 2007).
 - 14 Photographs of rehabilitation projects at Muggon and Doolgunna (DPaW, 2005-08).
 - 15 Extract from the *Gascoyne-Murchison Rangeland Strategy Report to Cabinet Sub-Committee* (Gascoyne-Murchison Rangeland Strategy Steering Committee, 1997).
 - 16 Table: *Vegetation Associations in the Gascoyne-Murchison Strategy Area as at 2012 – Current and Projected Reservation Levels* (DPaW, 2013).

-
- 17 *Report on an Acquisition Proposal: Lorna Glen Pastoral Lease East-north-east of Meekatharra* (DPaW [CALM], 2000).
 - 18 Table: Former pastoral leases managed by DPaW (DPaW, 2013).
 - 19 Map showing former pastoral properties managed by DPaW.
 - 20 *Operation Rangelands Restoration: A 2020 Vision* (DPaW, 2007).
 - 21 *Kennedy Range National Park and Proposed Additions Management Plan 2008* (DPaW, 2008).
 - 22 *Wanjarri: Conservation in the pastoral Lands* (DPaW [CALM], LANDSCOPE, Autumn 1991).
 - 23 *Interim Management Guidelines – Earaheedy Pastoral Lease 1999-2004* (DPaW [CALM], 1999).
 - 24 Information package - media statement *Historic addition to Western Australia's conservation estate* (WA Government, 20 September 2007) and *Fact Sheet – Additions to Western Australia's Conservation reserve System* (DPaW, 2007).
 - 25 Economics and Industry Standing Committee of the Western Australian Legislative assembly (2010). *The Department of Environment and Conservation's management of former pastoral leases*. Report No. 4 in the 38th Parliament.
 - 26 Government of Western Australia (2010). *Government Response to Parliamentary Inquiry - The Department of Environment and Conservation's Management of Former Pastoral Leases*.
 27. Department of Environment and Conservation, 2011. *Management of water points on former pastoral leases by the Department of Environment and Conservation*. Report to the Minister for Environment.
 28. Department of Environment and Conservation, 2011. *Efficiency of the Department of Environment and Conservation's aerial pest management programs on former pastoral leases*. Report to the Minister for Environment.
 29. Map of Former Pastoral Property Blocks in the Southern Rangelands.
 30. Muggon Block Neighbour Meeting Outcomes (DPaW, 2012).
 31. Karara Block Neighbour Meeting Outcomes (DPaW, 2012).
 32. Doolgunna-Mooloogool Block Neighbour Meeting Outcomes (DPaW, 2013).
 33. Background Paper: *Management of former pastoral properties purchased for nature conservation in the southern rangelands* (DPaW, 2013).
 34. *Nature Conservation Service Midwest Region Plan 2009-2014* (DPaW, 2009).
 35. *Good Neighbour Policy* (DEC, 2007).
 36. *Western Australian Wild Dog Management Strategy 2005* (Department of Agriculture, 2005).

-
37. Memorandum of Understanding between the Meekatharra Rangelands Biosecurity Association and the Department of Environment and Conservation, 2013.
 38. *Inventory of Tourism Assets on Department of Environment and Conservation Rangeland Properties – Gascoyne and Murchison regions, Western Australia* (CRC for Sustainable Tourism, 2008).
 39. *Into the wild; restoring rangelands fauna* (DPaW, LANDSCOPE, Winter 2009).
 40. *Goldfields Parks and Visitor Services Field Visit Report, April 2009* (DPaW, 2009).
 41. *Preliminary Draft Burringurra Conservation Area including Mt Augustus National Park Master Recreation and Tourism Plan* (DPaW, 2010).
 42. *Mount Augustus National Park (Burringurrah) Information and walk trail guide* (DPaW, 2004).
 43. *Fact Sheet 7: Clearing previously cleared land, grazing on and management of pastoral leases and Pastoral Lands Board requirements* (Department of Environment and Conservation).
