Submission No 332

INQUIRY INTO MANAGEMENT OF PUBLIC LAND IN NEW SOUTH WALES

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Inquiry into the management of public land in New South Wales

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Introduction

Public land in NSW is managed across a number of agencies that are responsible for a variety of different types of land. The three key managers of public lands in NSW are the National Parks and Wildlife Service (NPWS), and Forests NSW and the Crown Lands Division in the Department of Primary Industries (DPI). These three organisations manage the majority of public land in NSW and are the focus of this submission.

Other authorities with responsibility for the management of public land or for land management activities discussed in this submission include:

- Livestock Health and Pest Authorities
- Sydney Catchment Authority
- State Water Corporation
- Water Administration Ministerial Corporation
- Lake Illawarra Authority
- Office of Strategic Lands within the Department of Planning and Infrastructure
- the Rural Fire Service.

Public land managers in NSW work individually and collaboratively to manage risks such as fire, pests and weeds, and to protect the environmental, social and economic values associated with public lands. Collaborative management is undertaken through both formal and informal networks, committees, interagency strategies and policies.

The NSW Government has made a number of commitments in relation to the management of public lands. For example, a review of Crown land management has recently commenced, and aims to improve the management and stewardship of Crown land, and increase the benefits and returns from Crown lands to the State and the NSW community. It is expected that the review will result in the development of a contemporary legislative framework and improved financial, governance and business models for the management of Crown land.

In the 2012-13 Budget, the NSW Government committed $71 million to manage pest animals and weeds and improve fire management in national parks.

In addition, the NSW Government has announced it will make Forests NSW a state owned corporation (SOC). Forests NSW will remain publicly owned and the nature of the business and business relationships will remain largely the same but the governance structures will change to improve the organisation's commercial performance.

The remainder of this submission addresses each of the terms of reference of the inquiry:

- Section 1 sets out the process of converting other land tenures into national park estate, and includes the case studies of the river red gum forests in the southern Riverina, native hardwood State forests in northern NSW, Yanga Station and Toorale Station.
- Section 2 gives an overview of management practices on public land, focusing on national parks, State forests and Crown lands.
- Section 3 provides information on models for public land management.

An appendix provides background information on relevant NSW agencies.

1. Conversion of land into national park estate

Terms of reference

1. *The conversion of Crown land, State forests and agricultural land into national park estate or other types of conservation areas, including the:*
   a. *process of conversion and the assessment of potential operational, economic, social and environmental impacts*
   b. *operational, economic, social and environmental impacts after conversion, and in particular, impacts upon neighbours of public land and upon local government*
   c. *[consideration of] the following cases:*
      - *river red gum State forests in the southern Riverina*
      - *native hardwood State forests in northern NSW*
      - *Yanga Station in Wakool Shire, and*
      - *Toorale Station in Bourke Shire.*

1(a) Process of conversion and assessment of potential impacts

1(a)(i) Development of the national parks system in NSW

The development of the national parks system in NSW has been guided by the *NSW National Parks Establishment Plan*. The Plan details directions for building a comprehensive, adequate and representative (CAR) reserve system within the objectives of the *National Parks and Wildlife Act 1979* (the NPW Act), NSW Government policy, and state, national and international conservation commitments.

1(a)(ii) Sources of land for the national parks system

Since 1995 the majority of land added to the NSW national parks system has been public land. This land is generally either State forest areas or Crown land. Western Lands leases and perpetual leases are also bought on the open market, after which consent to transfer the land to the National Park Estate is sought from the Minister administering the *Western Lands Act 1901* or the *Crown Lands Act 1989* as appropriate.

Purchased freehold land has made up 8% of the total lands reserved since 1995. NPWS only seeks to acquire private land where a landholder is willing and interested in selling to NPWS. NPWS does not compulsorily acquire private land.

1(a)(iii) Funding for land acquisitions

Funding for private land purchases for the reserve system comes from various sources. In recent years, most funding has come from the NSW Environmental Trust and the Commonwealth's National Reserve System Program. In 2010-11, approximately $13 million was available for land acquisitions, just under half of which was from the Commonwealth.

1(a)(iv) General steps in establishing national parks

All lands proposed to become national parks have been subject to assessment and investigation in accordance with the NPWS *Reserve Establishment Guidelines*.

Potential public and private lands are investigated for their conservation values and operational implications, and filtered through an assessment and comparison of their contribution to overall Government policy goals.

Consultation occurs usually in one of two ways:

- **individual properties** – have been submitted for agency comment and the NSW Minerals Council through the Reserve Referral Process; and
- **regional assessments** – have been subjected to community consultation processes, such as those undertaken for the NSW Forest Agreements and Regional Forest Agreements, together with regional assessments for the Brigalow Nandewar region (1999-2002), river red gums (2009) and south west cypress forests (2009-10).

The transfer of Crown land to the National Park estate has been assessed by DPI in accordance with the principles of Crown land management contained within the *Crown Lands Act 1989*. Consideration has also been given to the potential efficiency of land management arrangements, for example where it may be cost-effective to amalgamate fragmented parcels of land.

Once land is reserved under the NPW Act, it can only be revoked by an Act of Parliament. Uses that were lawfully being undertaken prior to reservation of the land are able to continue under the 'existing interest' provisions of the NPW Act. Legislation establishing new parks also usually provides for park boundaries to be adjusted to take account of local circumstances and improve park management.

1(a)(v) Assessment of potential impacts

Operational assessments

One of the main assessment mechanisms used since the mid-1990s has been comprehensive, whole-of-government, regional investigations of public land.

For individual properties, operational implications were assessed as part of the new area investigation process set out in the NPWS *Reserve Establishment Guidelines*. The financial implications of land management have been given specific attention to ensure that the cost of future management is factored into the decision-making process for any new park.

Economic assessments

Planning for new national parks should take account of the potential economic impacts, both positive and negative, that may accrue to local communities, business and local government.

In the case of the various regional assessment processes, this has occurred through detailed investigation and community consultation. For individual properties, relevant information was gathered as part of the new area investigation in accordance with the NPWS *Reserve Establishment Guidelines*.

In recent years, as the focus of national park establishment was gradually shifted towards those parts of the state that were classified as significantly under-represented, such as Central and Western NSW, NPWS recognised the need to change the way proposed additions to the national parks system were assessed. In these areas, particularly for large agricultural properties of significant market value, NPWS has started to gather and assess a range of information regarding economic performance and contribution.

Depending on the nature of the particular property this can include consideration of employee numbers, stocking levels, council rates and local suppliers. For some properties, this information is provided by a professional valuer. In other cases, it is gathered by direct discussions with the landholder. NPWS is continuing work to improve its processes to ensure that this type of information is available during the investigation phase.

Social assessments

The social implications of new national parks were also a feature of the regional assessment processes that have been undertaken across NSW since the mid-1990s on public land. In all of those cases, social profiles of affected communities were studied in-depth and there was extensive consultation undertaken to determine the nature and scope of likely impacts.

Government decisions flowing from the regional assessments have usually been accompanied by significant industry structural adjustment packages and funding for community economic development.

Environmental assessments

The primary purpose of establishing new national parks has been to conserve in perpetuity and make available for public access those places that contain the unique plants and animals, valuable ecosystems and cultural heritage that are so highly valued by Australians and international visitors.

Every potential new national park has been comprehensively assessed to determine its environmental values to ensure that it will make the best contribution to the NSW national parks system. Assessments occur via a combination of regional scale and individual property investigations.

1(b) Operational, economic, social and environmental impacts after conversion

1(b)(i) Operational impacts

NPWS has used a 'Parks Management Framework' (PMF) to ensure that policy, legislative and corporate objectives are delivered throughout the organisation and the national parks system is managed effectively and efficiently for the people of NSW.

The PMF was developed in response to the 2004 NSW Auditor General's report, *Managing Natural and Cultural Heritage in Parks and Reserves,* and was adapted from international best practice park management frameworks. The PMF and accompanying park management program align with the AS 14001 requirements for an Environmental Management System.

The acquisition and establishment of a new national park involves significant investment in land management. This includes enhancing fire fighting capacity and active fire management, pest and weed control in cooperation with neighbours, and in developing facilities for public use.

All aspects of park planning and management occur with major community input, with local level engagement through regional advisory committees, working groups, specialist neighbour relations staff and collaborative planning for park management, fire and regional pest strategies.

Early management actions

Active management of fire, pests and weeds occurs immediately after land is acquired by NPWS. Visitor facilities, services and heritage restoration actions follow, once communities have had opportunities to become involved in planning and investment decisions.

Plans of Management

Plans of management are statutory documents prepared in accordance with the NPW Act. Each park must have a plan of management prepared 'as soon as practicable' (generally within 3-5 years) after reservation. Plans are formally reviewed every 5-10 years, and are subject to periodic audit processes.

Plans of management must be prepared in consultation with the relevant Regional Advisory Committee and the National Parks and Wildlife Advisory Council and publicly exhibited.

As at May 2012 nearly 83% of parks and reserves by area are covered by an adopted plan of management. A further 4% by area have a draft plan in an advanced stage of preparation.

Detailed planning

While the statutory plan of management process provides the over-arching direction and objectives for each national park, ongoing day-to-day management needs more detailed operational planning. NPWS prepares annual operational plans to set priorities in each region.

Engaging with neighbours

Once land has been acquired for a new national park, in accordance with the *Neighbour Relations Policy,* NPWS seeks to advise neighbours and provide opportunities to discuss shared land management issues and future planning for the park. This may also occur for significant additions to existing parks.

In some cases, NPWS employs specialist neighbour relations rangers to ensure resources are dedicated to on-going liaison with adjoining properties and communities.

Engaging with local government and natural resource management agencies

NPWS recognises that a key part of managing the suite of national parks in any given region is to engage with local councils, other significant landholders and natural resource managers. NPWS actively participates in a range of activities to facilitate cross-tenure planning and land management programs with these stakeholders, including:

- **pests and weeds** – for example, via engagement with the Livestock Health and Pest Authorities and local and regional weed committees
- **fire management** – NPWS is an active member in the District Bush Fire Management Committees across NSW
- **recreational and tourism planning** – including initiatives with Forests NSW, NSW Fisheries and Crown Lands Division on mountain bike riding, recreational fishing, four wheel drive access and other active recreational opportunities. The Bicentennial National Horse-Riding Trail is an example of the type of facility that has been planned and delivered across a range of public lands, including access through more than thirty national parks in NSW.

For some parks NPWS works in partnership to share management responsibilities and decisions. In the Sydney Drinking Water Catchment, for example, NPWS undertakes joint management of a number of parks with the Sydney Catchment Authority.

Investment in facilities

The creation of a new national park is supported by substantial investment in facilities to support community access and sustainable visitor use. This investment can include repairing or upgrading roads and bridges; installing essential infrastructure such as water, electrical and telecommunications lines; providing new picnic and camping areas, and associated toilet facilities; and new signage. The national parks system contains more than 41,000 km of roads, over 650 lookouts and viewing platforms, and in excess of 470 campgrounds.

The NPWS *Park Visitor Facilities Policy* and *Park Facilities Manual* sets out the process for planning and providing new park infrastructure. This work is preceded by assessments of community interests to determine the types, location and nature of visitor facilities required.

The most significant investments typically occur in the early phases of a new park establishment, generally over the first 5 years of a new park. Subsequently, the overall investment tends to stabilise at a level necessary to maintain infrastructure into the future.

In both the establishment phase and on-going management of national parks, the NPWS preferences sourcing the supply of goods and services from local businesses. Importantly, unlike properties managed for agricultural or other productive purposes, national parks are not significantly affected by swings in economic cycles, nor do they rely on importing staff for seasonal purposes (with the exception of fire activities in some locations).

NPWS tracks the condition of all assets and their maintenance requirements through the Asset Management System. The provision and management of specific types of assets are also guided by more detailed policy and procedures, such as the NPWS *Roads Manual*.

Adaptive park management – State of the Parks

NPWS has used a comprehensive State of the Parks reporting system to monitor and evaluate the condition of and pressures on national parks, and to ascertain how effectively these areas are being managed. This information is vital for park managers so they can learn from past

practices and inform future management. Similar programs are administered by park management authorities around the world.

The NSW State of the Parks program has been recognised as a world leader in providing a comprehensive and rigorous process for assessing the management effectiveness of protected areas and has been presented as a case study in best practice guidelines. Information from State of the Parks is regularly published on the website of the Office of Environment and Heritage (OEH).

1(b)(ii) Economic impacts

The establishment of new national parks can have a range of economic impacts and benefits for neighbours, local government and the broader regional economy.

Since the mid-1990s NPWS has commissioned a series of expert economic assessments to estimate the direct and flow-on impacts on local economies and other aspects of the economic value of national parks. More recently the scope of this research has been widened to consider the impacts of national parks in several broad regions of NSW.

Key findings are summarised in the following table. These consistently demonstrate the important contribution that national parks make to regional economies through park management expenditure and visitor expenditure.

Summary of key economic contributions of the national parks system, by region

Region	Annual contribution of NPWS expenditure to regional value-added activity	Annual contribution of park visitor expenditure to regional value-added activity	Equivalent jobs generated in the region
North East	$17.00 m	$107.0 m	1915
Far South Coast	$8.00 m	$54.0 m	921
Far West	$6.25 m	$6.1 m	203
Wheat Sheep Belt	$7.50 m	$8.8 m	295

At a more local level, in parts of western NSW concerns have been expressed that the loss of even relatively small amount of rates will have a significant adverse effect on council budgets and the ability to deliver services to local communities.

Visitation and Tourism

The national parks system is a significant public asset that supports the NSW tourism industry and greatly contributes to regional economies. NSW national parks received over 34 million visits in 2010. In 2009, two-thirds of international nature-based visitors to Australia visited a national park.

The NPWS *Sustainable Tourism Action Plan 2010* provides a strategic approach for the identification and prioritisation of new visitor experiences, allocation of resources, marketing and development of partnerships. In the coming year, NPWS will complete work on *Sustainable Tourism in Parks 2012-2017* to guide future tourism planning in the national parks system.

NPWS has a dedicated Tourism and Partnerships Branch, focused on developing innovative visitor opportunities and fostering strong partnerships. NPWS is collaborating with key NSW and Australian tourism bodies to deliver the NSW 2021 goal to increase tourism in NSW, and double tourism expenditure by 2020.

Over 180 businesses are licensed under Parks Eco Pass to provide a wide array of commercial recreational activities in national parks, such as bus tours, bushwalking, cultural tours, cross country skiing, four wheel driving and horse riding.

Building on traditional forms of promoting access and visitor opportunities in the national park system, NPWS is moving to adopt new methods that will reach an expanded market. This includes the use of on-line technologies and social media. NPWS has also partnered with Destination NSW and Inland Tourism in a three year digital marketing campaign promoting nature-based experiences and national parks in western NSW.

1(b)(iii) Social impacts

The conversion of land to national parks can have significant social benefits for local communities. National parks provide areas for public enjoyment and recreation, opportunities for community involvement in volunteering, education programs.

Community input to decision-making

Decision-making for the management of lands in the national park system is informed by extensive community input.

The NPW Act establishes:

- a state-wide National Parks and Wildlife Advisory Council to provide high-level advice to the Minister on management of national parks and reserves;
- fourteen regional advisory committees (RACs) to provide more focussed community engagement in the management of national parks in particular regions; and
- specialist advisory groups dealing with Aboriginal cultural heritage and karst management.

NPWS also works closely with peak stakeholder groups on particular conservation and visitor use issues. Examples include ENGO's, the Horse-riding Consultative Group and the Four-Wheeling Driving Consultative Group.

Community health and access

Access to national parks can have significant physical, social and mental health benefits for communities. National parks provide an important recreational area for a diverse range of passive and active pursuits, promote healthy outdoor experiences, provide areas for social and community gatherings, and foster a connection with nature.

The NSW national parks system provides a diverse range of recreational outdoor activities. It provides over 2,500 km of walking tracks, thousands of kilometres of trail available for mountain biking, horse riding and four wheel driving, more than 800 picnic sites, 660 lookouts and 470 campgrounds with space for over 5,000 camping sites. It also provides access to a multitude of beaches, lakes and rivers available for water sports, swimming and fishing. There are also six environmental education centres leased to the Department of Education and Communities used extensively by school groups.

NPWS is working with Forests NSW, NSW Fisheries and Crown Lands Division to strengthen the whole of Government approach to recreation and tourism on publicly managed lands. This will further assist in promoting the health benefits of access to public lands.

Volunteers

NPWS strongly encourages active community involvement in park management, consistent with the NSW 2021 goal of increasing volunteer participation above the national average. Volunteers contribute significantly to the management of national parks, with over 6,300 volunteers contributing more than 126,000 hours in parks and reserves across NSW in 2010-2011 (compared to 3,800 in 2007-08).

Volunteers participate in a range of programs, including bush regeneration, wildlife rescue, whale surveys, historic building restoration, mountain bike track maintenance, campground hosts and guided tours.

Improvements in opportunities for Aboriginal people and communities

The NSW national parks system can bring significant benefits to Aboriginal people and communities through joint management arrangements, employment, specific Aboriginal cultural heritage programs and access to country.

Aboriginal joint management of national parks

Joint management is a partnership between NPWS and Aboriginal communities for shared park management. The Aboriginal joint management program works to achieve a number of NSW 2021 goals, including fostering opportunity and partnership with Aboriginal people across NSW.

NPWS is party to 25 joint management arrangements covering approximately 1.5 million hectares or almost a quarter of the national parks system. There are over 200 Aboriginal people formally appointed to boards of management and committees to oversee the management of jointly managed parks, and over 100 Aboriginal staff members directly employed in management of these parks.

NPWS Aboriginal employment and capacity building

As noted above, NPWS is a significant employer of Aboriginal Australians. There are over 200 jobs that are specifically reserved for Aboriginal people within NPWS, which account for just under 10% of the NPWS workforce.

A series of successful NPWS programs seek to improve wellbeing in Aboriginal communities by supporting training and business opportunities, including:

- **NPWS indigenous cadetship program** – which supports individuals undertaking tertiary study. Since 2002, fifty three cadets have commenced with NPWS and 18 have been permanently appointed to positions in NPWS.
- **Indigenous traineeship program** – a work based training program for field officers and interpretive assistants. After a twelve month traineeship program, participants attain a formal qualification, the Certificate II in Conservation and Land Management. Since 2006, 41 indigenous trainees have completed the program, with 7 currently undertaking it. Twenty eight indigenous participants have gained further temporary or permanent employment with NPWS at the conclusion of the program.
- **Aboriginal Tour Guide Training program** – which has been developed by NPWS in collaboration with NSW TAFE. Since 2007 it has trained over 300 Aboriginal participants in 32 Aboriginal communities throughout NSW.

1(b)(iv) Environmental impacts

NPWS has invested significantly in on-the-ground programs to protect rare and endangered animals so they can survive into the future. In NSW over 800 species, 35 populations and 75 ecological communities are listed as threatened. NSW has experienced declines and extinctions in a broad suite of native plants and animals since settlement. Mammals have shown the most significant declines with 26 of 138 species (19%) now extinct.

The *Threatened Species Conservation Act 1995* requires preparation of a threatened species Priorities Action Statement (PAS) to set out the recovery and threat abatement strategies to be adopted for each threatened species. NPWS plays a key role in implementing the current PAS and is responsible for delivering 80% of the nominated actions.

In addition to on-going biodiversity programs, NPWS undertakes significant work to restore and improve the condition of degraded areas. For example, in Kosciuszko National Park NPWS has received the Engineers Australia Excellence Award for Regional Communities for work undertaken in rehabilitation work on sites formerly part of the Snowy Mountains Scheme.

Recent Australian peer-reviewed research has found that protected areas are one of the most effective tools for threatened species management. Compared to other initiatives, threatened species whose distributions overlapped with strictly protected areas had proportionately more populations that were increasing or stable.

Protection of heritage

The NSW national parks system is home to a highly valued collection of places and items of Aboriginal and historic heritage value. World famous examples include the Three Sisters in the Greater Blue Mountains World Heritage Area and Captain Cook's landing place in Kamay Botany Bay, National Park.

At a more regional and local scale, the national parks system contains numerous heritage sites that have strong and deep community attachment. Many local communities are highly protective of this heritage and place a high priority on ensuring it is both maintained and publicly accessible into the future.

NPWS is committed to ensuring that our heritage remains accessible so that people are able to connect and reconnect with and share their history, and is working to create new opportunities for communities to access their local heritage. That includes seeking private sector partnerships to repair sites and improve public access.

NPWS works to protect, maintain and restore Aboriginal cultural sites, objects and values, including at many places that are extremely fragile, in close collaboration with local Aboriginal communities and conservation specialists. There are now eighty-two Aboriginal Places declared under the NPW Act, many of which are within the national parks system.

NPWS partners with Aboriginal communities to develop specific management plans for these areas. Significant effort is made in the conservation of Aboriginal rock art and engravings, through removal of graffiti, clearing of damaging vegetation, fencing and interpretative signage. NPWS uses trained Aboriginal staff and community members in this work and also assists local communities at a broader scale to assess, record and protect their local heritage.

1(c) Case studies

1(c)(i) River red gum forests in the southern Riverina

The Riverina bioregion covers about 9.7 million hectares across south-west NSW, northern Victoria and north-east South Australia. Approximately 7 million hectares (72%) lie within NSW, including around 401,000 hectares of river red gum forests.

At the time of the Natural Resources Commission (NRC) assessment almost 7% of the river red gum forests in NSW were located in national parks and reserves (covering 27,400 hectares), with 32% in State forests and 50% in private ownership.

Environmental values

The NRC reported the Riverina river red gum forests possessed a wide range of environmental values. It concluded the condition of river red gums in the bioregion was in decline, largely due to poor health from substantially reduced river flows and altered flooding regimes.

Social and economic values

The NRC report included comprehensive assessment of the social and economic values of the river red gum forests. The NRC found that, while the forestry industry reliant on river red gum wood from public land made a relatively minor economic contribution at the regional and state level (contributing less than 1% of the region's economy), at a local level it was significant to a number of towns. The NRC also identified a range of other industries that benefited from the river red gum forests including grazing, apiary and tourism, and social benefits arising from historical uses such as firewood collection, recreational use and indigenous values.

Key outcomes for the river red gums

The NRC proposed major changes to all aspects of management of the river red gum forests. In 2010, the NSW Government accepted the NRC's key recommendations and responded through a decision with three key elements:

- land tenure changes to improve environmental protection;
- a sustainable red gum timber industry; and
- an integrated funding package.

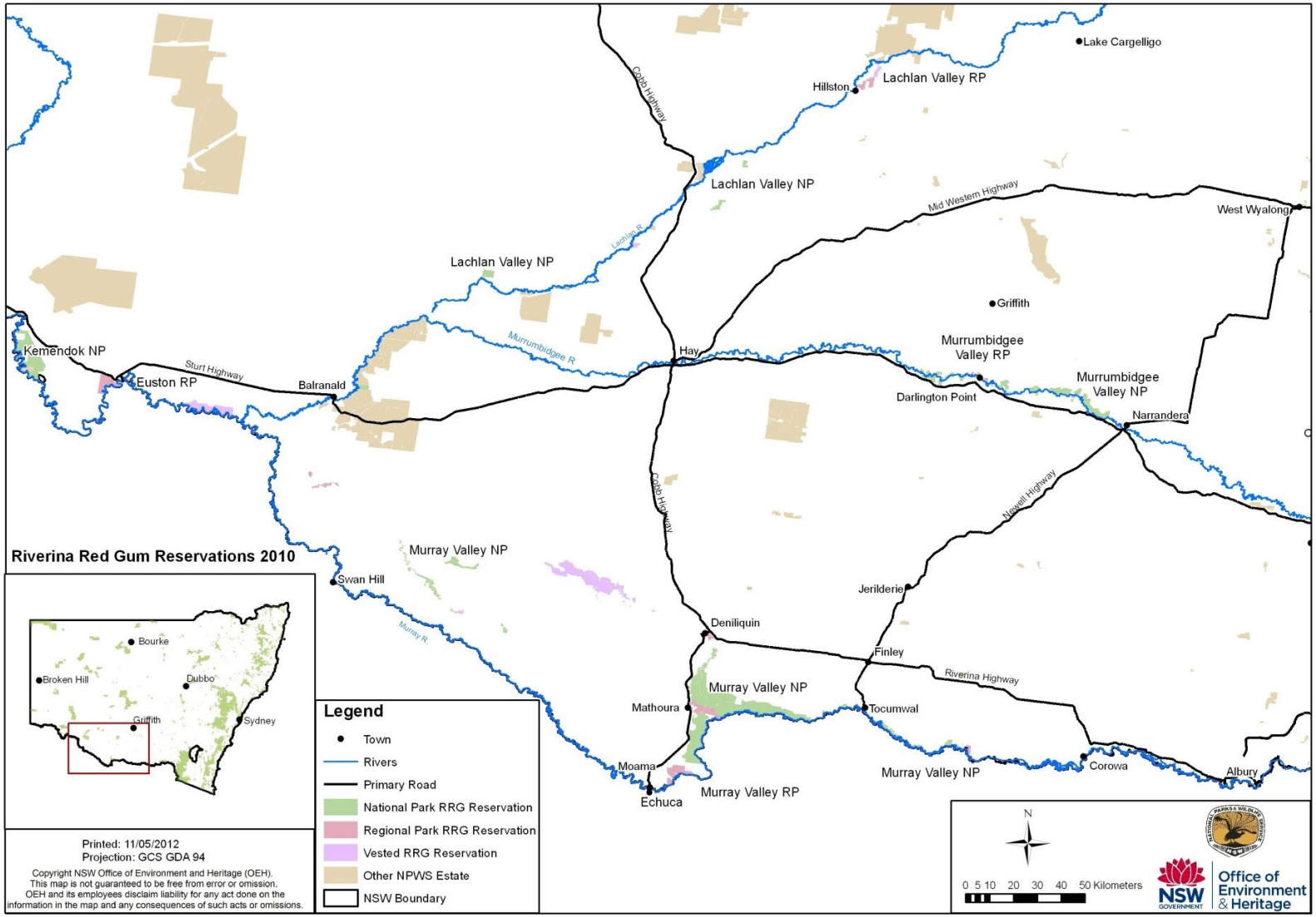
Outcomes

On 1 July 2010, the *National Park Estate (Riverina Red Gum Reservations) Act 2010* (RRGR Act) came into effect, establishing more than 100,000 hectares of river red gum parks in the Riverina through a combination of measures. New lands were added to the national parks system in three key areas: Murray Valley; Murrumbidgee Valley; and Lachlan Valley. Around 20,000 hectares were identified for the future creation of Indigenous Protected Areas.

The RRGR Act allowed timber harvesting to continue in the Koondrook, Campbell's Island and Perricoota State Forests under an Integrated Forestry Operations Approval (IFOA).

In addition, a $97 million support and management package was provided, including a $51.5 million Industry Structural Adjustment program.

River red gum reservations 2010



Boundary adjustments

Under the RRGR Act, national park boundaries were able to be adjusted up until 30 June 2012 without the need for an Act of Parliament.

Sixty three boundary adjustments totalling 5,018 hectares were notified through publication on the NSW Legislation website on 29 June 2012. These were reviewed and supported by the NRC, which concluded they were equitable. The adjustments include 3,700 hectares removed from national park reservation given existing grazing and cultivation activities, and 1,117 hectares of national park that has become a regional park to take account of the historical use of the area for dog-walking.

With the exception of land where reserve categories have changed, the effect of the adjustments is that the reservation of the lands under the NPW Act is revoked and the lands can then be sold, swapped, transferred or licensed to a third party. Further detailed work will occur for each site before such arrangements are finalised.

Operational and environmental impacts

The parks which are subject to this case study remain 'new' and still in the establishment phase when compared to existing parks in the region and across NSW. In addition, floodwaters during 2010-11 have significantly hampered initial park management establishment efforts. As these have receded and inundated areas have started to dry, field based activities have gradually become possible.

Plans of management

Plans of management for each river red gum park will be prepared in the near future. Interim management arrangements have been adopted for the park groups in Millewa and Mulwala. An interim management plan is also being prepared for the Murrumbidgee Valley reserves.

Fire management

The immediate emphasis following establishment of the new parks in mid-2010 was on building an appropriate fire management capability, particularly through investment in equipment and staff training.

All new NPWS field staff have been trained and are competent to undertake incident management roles. These are in addition to existing trained staff already located in the region. Additional new equipment has been purchased for use in direct fire suppression actions, such as graders, fire units and tractors.

Fire management strategies are being completed for all parks with the initial focus on those located near towns. Consultation has occurred with the NSW Rural Fire Service (NSW RFS) and key strategies will be placed on public exhibition during the second half of 2012.

Since July 2010, ten bushfires have occurred within or nearby the new parks along the Murray, Edward, Murrumbidgee and Lachlan rivers. On each occasion fire crews from the NSW RFS and NPWS have attended and successfully suppressed all fires, containing most of them to less than 1ha. No fires have moved beyond park boundaries. Of the 10 bushfires:

- 6 occurred on-park;
- 3 started and remained off-park; and
- 1 occurred off-park and moved onto a park.

Hazard reduction plans are being prepared. Although flooding and access restrictions have prevented significant on-ground hazard reduction, NPWS has been able to implement essential fire trail maintenance on over 735 kilometres of trails and access points in 2011/12.

Pest management

Initial NPWS priorities in the region are to develop pest and weed control programs for foxes (to minimise impacts on turtles and nesting waterbirds), rabbits (to reduce grazing pressure on sand hill ridges), willow infestation into wetlands and along waterways, and to control Arrowhead Saggitaria montevidensis (a noxious semi-aquatic weed).

NPWS has completed pest surveys in the Murray Valley – Millewa, Werai and Murrumbidgee River reserve groups. Fox baiting has commenced in Murray Valley – Millewa, as well as a pig baiting program at Werai supported by aerial shooting.

Natural heritage conservation

The NPWS's main priorities are now to ensure the parks are managed in the most efficient and effective way for the benefit of the community and to ensure on-going protection of the values which justified their inclusion in the national parks system in the first place. Improving the ecosystem functioning and resilience of the river red gum parks is one of the driving objectives in future management of these lands.

Adaptive management

An Adaptive Management Plan for the NSW river red gum reserves is currently being developed in line with NRC forest management principles.

NPWS has established an Adaptive Management Unit (AMU) in the Western Rivers Region to implement and manage forest health and water management projects in cooperation with operational NPWS teams, other agencies, and the Commonwealth.

Forest health and ecological thinning

The NRC report gave strong support for the roll-out of large-scale trials of ecological thinning programs across all the river red gum forest groups. Ecological thinning will be a feature of the overall Adaptive Management Plan discussed above.

A joint NSW-Victoria ecological scientific thinning design trial design plan has been reviewed and endorsed by a cross-border Scientific Advisory Committee. NPWS has completed work on an ecological thinning trial demonstration site in the Murray Valley National Park. The site will be used to demonstrate the type of thinning actions required to contractors planning to tender for the trial project.

Delivering water for the environment

River red gum forests depend on reliable access to surface or groundwater.

The NSW Government, in conjunction with the Murray Darling Basin Authority and a number of stakeholder groups, has been supplying environmental water to these forests for more than 15 years. The Barma/Millewa forests have had an environmental water allocation of up to 100 gigalitres for well over a decade and are identified as a 'Living Murray icon site' under the Living Murray program.

NPWS and other parts of OEH are also working with other agencies to implement major capital works programs that will assist in watering these forests and wetlands. This builds on capital works programs undertaken by Forests NSW and other stakeholders during the past two decades. In 2011-2012 more than $600,000 in water delivery capital works were completed and a further $800,000 works are proposed for 2012-2013.

Ecological partnerships

NPWS and other teams within OEH work with neighbouring landholders on cross tenure management of sensitive areas. For example, an agreement has been made with Ag Reserves Australia, a pastoral and cropping company which owns Kooba Station, located along the Murrumbidgee River and bordering Murrumbidgee Valley National Park. Gooragool Lagoon is located within the national park and the interconnected Mantangary Lagoon lies within Ag Reserves private property.

OEH has agreed to offset Ag Reserves' water if the company does not extract water from Gooragool Lagoon during periods when environmental water is delivered into the site.

Managing firewood collection

Prior to the establishment of the river red gum national parks, firewood collection in the State forests was regulated by a permit system. A permit system administered by NPWS is in place to enable firewood collection within the national parks for domestic purposes.

In managing firewood collection, NPWS endeavours to maintain a desired 45 tonnes per hectare coarse woody debris (CWD) level on the ground. Firewood collection areas are generally focused on former State forest sawlog harvesting compartments that were most recently logged (and as a result contain extremely high levels of CWD). During the 2011 collection season, 1,148 permits were issued for collection of 2,470 tonnes of firewood.

A cross-border collaborative process has also been established between NPWS, Forests NSW, Parks Victoria and the Victorian Department of Sustainability and Environment.

Economic and social impacts

Since 2010, the NSW Government has provided considerable resources in setting up the river red gum reserves, including over $8.5 million in general expenditure and $5.625 million in capital expenditure.

The river red gum national parks are distributed across a large number of local government areas. As with parks in other parts of NSW, NPWS aims to source required goods and services from local suppliers and contractors as much as possible.

In 2011-12 approximately $4 million in recurrent expenditure and over $3 million in capital expenditure was spent within local government areas in the region.

Supporting local businesses

Implementation of the river red gums decision is being supported by an on-going package of grants and initiatives to help encourage business investment and employment in the Riverina. These flow from the Riverina Red Gum Regional Employment and Community Development Fund.

The first round of grants was announced in December 2010. Forty-one projects were supported with the injection of almost $9.5 million from the fund, and were estimated to

support over 100 direct jobs and a further 120 indirect jobs. A further $2.5 million in grants were provided to 27 projects in early 2012. These were expected to create and/or retain a further 90 direct jobs in the region.

A full list of successful projects is available at http://www.environment.nsw.gov.au/grants/2011riverredgum.htm . The grants are in addition to funds already paid to mill owners and workers, and have focussed on supporting small and medium sized businesses.

Benefits to Aboriginal communities

The NSW Government, together with the Commonwealth, has committed to working with local Aboriginal people and traditional owners to assist them on a path towards the possible creation of two Indigenous Protected Areas covering approximately 20,000 hectares.

Until the lands are transferred to Aboriginal ownership, they are vested in the Minister under Part 11 of the NPW Act and managed by NPWS.

Building local tourism and park visitation

NPWS places a high priority on supporting the local economies of the Riverina and ensuring that the benefits of the river red gum national parks are maximised and shared to the advantage of the entire community. Since the announcement of the river red gum national parks NPWS has maintained public access (except during flooding events) and has made significant investments in initiatives to attract more park visitors to the region and build connections with local business and tour operators.

Visitor sources and trends

The river red gum reserves have a long history of use by surrounding communities and visitors to the region. Historically, these areas have been accessed for a range of land and water based activities including camping, boating, water skiing, fishing, car touring, four-wheel driving, cycling, horse-riding, walking and hunting.

There is a lack of data on visitor numbers prior to the transfer of lands to the national parks system, and regarding the types of facilities and access desired by the community. NPWS has undertaken research and consultation with local communities, councils, tourism operators, Tourism NSW and Parks Victoria to identify the types of experiences that will meet the needs of park visitors. Further market research is planned for 2012-13.

NPWS implemented an on-the-ground campaign to introduce local businesses to the parks to find the most effective ways to increase visitor numbers. NPWS also held workshops, tours and discussions with the mayors and general managers of local councils. These efforts culminated in the preparation of a comprehensive Nature Tourism Action Plan.

NSW River Red Gum Nature Tourism Action Plan

The Nature Tourism Action Plan was launched in March 2012. It is the first tourism plan which specifically targets national parks in regional NSW and provides the stepping stones for tourism development in the Riverina.

The Plan follows on from initial investment of $1.245 million in 2011-12 to improve road access, provide visitor facilities for day use and camping, and undertake visitor profiling and research. The Plan commits a further $1.5 million to a range of projects across the Murray, Murrumbidgee and Yanga-Lachlan areas during 2012-13.

1(c)(ii) Native hardwood State forests in northern NSW

The following section covers outcomes from the 1998 NSW North East Forest Agreement and Regional Forest Agreement (RFA), and later outcomes arising from follow-on implementation and additional initiatives that resulted in lands being added to the national park system. This is necessary as on its own the 1998 North East Forests Agreement outcomes do not provide a full and complete picture of the development of the national parks system in the north east from that period until 2012.

The North East Forest Agreement and Regional Forest Agreement

The North East region comprises two areas covering nearly 10 million hectares: Lower North East and Upper North East. It stretches from around Gosford to Murwillumbah along the coast, west to beyond Tenterfield and then south to Putty.

At the time of development of the North East Forest Agreement and RFA, about one third of the region was forested public lands, comprising national parks (1.3 million hectares), State forests (1.02 million hectares) and areas of Crown reserve.

Comprehensive regional assessments (CRAs) were undertaken in the Upper and Lower North East from 1996 to 1999, including over sixty specialist studies covering the full range of environmental, economic and social issues. Community engagement in decision-making was facilitated through regional forest forums for each of the NSW forest regions.

Key outcomes for the North East Region

The North East Forest Agreement and RFA were developed to balance the protection of natural and cultural heritage with support for a sustainable timber industry. The process was supported by the Commonwealth as part of delivery of the National Forest Policy Statement.

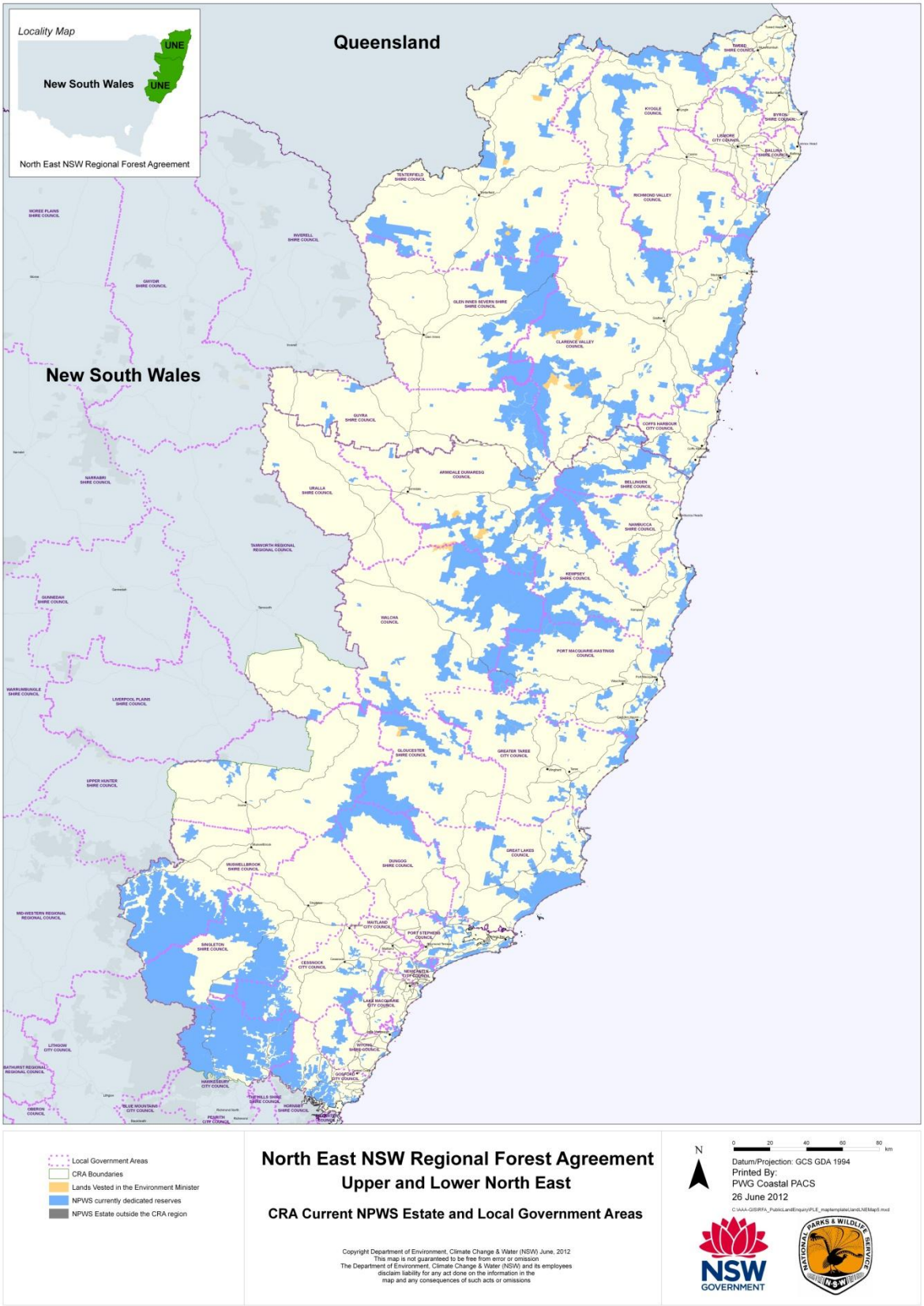
Conservation outcomes

At the time of establishment of the North East Forest Agreement and RFA, the following key outcomes were achieved through inclusion of land in the national park system:

- all 361 identified forest ecosystems were represented;
- 57% of old growth forests in the Upper North East and more than 70% in the Lower North East were included in the reserve system;
- more than 109 threatened and/or forest dependent plant species and 144 animal species were protected;
- the whole of the World Heritage listed Gondwana Rainforests was contained within the reserve system;
- 59% of high quality wilderness in the Upper North East and 84% in the Lower North East was within dedicated reserves; and
- sites of historic and Aboriginal cultural heritage value were protected.

Since that time, further steps were taken as part of the continued implementation of recommendations flowing from the North East Forest Agreement and RFA.

Lands currently managed by NPWS in the North East forest region



The total area now recognised as part of the comprehensive, adequate and representative (CAR) reserve system in the North East, including new and pre-existing dedicated reserves,

informal reserves and values protected by forest management prescriptions, is approximately 2.14 million hectares.

The total area of formal reserves (such as national parks) in the North East Region is now over 2 million hectares, including lands that were already reserved prior to the NSW Forest Agreement and RFA process.

Industry outcomes

A range of measures worth more than $120 million were provided by the joint Commonwealth and State Government Forest Industry Structural Adjustment Package (FISAP) to support industry transition.

Transitional arrangements

Prior to their inclusion in the parks system arising from the North East Forest Agreement and RFA, a range of existing activities were being undertaken on these lands, including forestry. Arrangements for managing 'existing interests' were built into the forest outcomes. Some of the activities were able to continue under the terms of existing permits and approvals.

Examples include:

- **bee keeping** – around 260 bee sites were identified as existing uses within State forests in the north east region, which were regulated under occupational permits. Most hive locations remained the same and apiarists were transferred to NPWS licences, with fees waived for a number of years.
- **white-water rafting** – areas along the Nymboida River within Nymboi-Binderay National Park and State Conservation Area included the launching point for several commercial rafting operators. Following consultation with a range of stakeholders during the development of the park plan of management licences were granted to the operators allowing access for up to 10,000 visitors per year.
- **grazing** – available data indicates that between 1998 and 2003 around 200 occupation permit holders were affected by the establishment of new parks. Transitional arrangements were managed by an Occupation Permit Task Force comprising key agencies and the NSW Farmers Association.

Operational and environmental impacts

The national park system in the North East Forest Region covers over 2 million hectares, comprising more than 400 individual parks and reserves. In addition, NPWS manages around 1,400 kilometres of access roads that were acquired but not reserved under the NPW Act. These provide on-going access to neighbouring state forests and private property.

Plans of management

Plans of management have been either been adopted, exhibited or are in advanced stages of preparation for 99% of all national parks in the region by area. Parks within the Gondwana Rainforests World Heritage Area are subject to an additional management plan, required under agreements with the Commonwealth.

All parks in the region are covered by internal regional operations plans, which are updated annually. Parks with significant visitor or business activities, such as the Dorrigo Rainforest Centre and Sea Acres Rainforest Centre, have business plans in place or in preparation.

Fire management

Reserve fire management plans – articulating how NPWS will achieve the objectives of the state-wide Bush Fire Risk Management Plan (see section 2(a)(i)) – are in place for all except three parks in the north east region. Plans for the remaining three parks are in preparation.

Consistent with state-wide directions there has been an expansion in prescribed burning and hazard reduction programs in the north east over several years. Although wet weather has had a recent impact, in 2011-12 more than 23,000 hectares was treated by prescribed burning.

Pest management

All national parks in the north east region are covered by Regional Pest Management Strategies, covering the period 2008-11. Revised strategies are in an advanced stage of preparation following the conclusion of public exhibition and regional workshops at the end of February 2012.

Expenditure on managing pest animals and plants has remained relatively stable since 2008. In 2010-11, NPWS spent approximately $4.6 million in the north east region.

Natural heritage conservation

Assessment of progress towards the achievement of ecologically sustainable forest management is undertaken as part of annual reports under the NSW Forest Agreements. The 2009-10 report covers all four forest agreements (Upper and Lower North East, Eden and Southern). Across all regions, 67% of the key milestones are complete or have been delivered through alternative mechanisms. The remaining milestones are mostly ongoing tasks.

More specific information on the overall condition of national parks in the north east region is gathered as part of the triennial State of the Parks survey. Using the most recent survey results, overall condition is described by park managers as being excellent or good in approximately two thirds of the north east forest region parks.

Ongoing re-vegetation and bush regeneration activities are resulting in improvements to condition in many parks throughout the region, particularly through activities that remove weed species such as lantana and allow greater competition by native species. Positive change in the condition of the natural heritage values between 2007 and 2010 has been reported by park managers for 134 parks.

NPWS continues to monitor the condition of natural heritage values through a range of programs, including vegetation surveys, bird and animal surveys, vegetation recovery after fire, water quality, and at target sites for pest species such as bitou bush and foxes.

Cultural heritage management

National parks in the north east region contain a diverse mix of sites with Aboriginal and historic heritage value, including the World Heritage Gondwana Rainforests and parts of the Greater Blue Mountains World Heritage Area. The significance of forests in the Gondwana parks has been recognised by listings on the State Heritage Register.

NPWS works extensively with the Aboriginal community to assist them in gaining access to sites of cultural value and provide opportunities to pass on cultural knowledge between

generations. Examples include: culture camps that provide a ‘back to country’ experience for Aboriginal children; cultural resource mapping; and teacher’s guides.

Consistent with the objective of encouraging people to access and understand their heritage, NPWS has also been working to upgrade and restore historic heritage assets. At Smokey Cape and Sugarloaf Point lighthouses, for example, the former lighthouse keepers’ cottages have been restored and are now available as short-term accommodation for park visitors. At Roto House (Port Macquarie) over $500,000 has been invested to revitalise the homestead for interpretative displays, a café and function and event hire.

Economic and social outcomes

Published regional economic studies have found that NPWS expenditure contributes $17 million per year in direct and indirect value-added activity to the regional economy. This expenditure directly and indirectly generates the equivalent of 265 jobs in the north east region.

The same research also found that visitors to parks and reserves contribute about $107 million per year in regional value-added activity, which includes $59 million income paid to households. Visitor spending represents the equivalent of 1650 jobs in the region. The result of this is that national parks in north-east NSW help create more than 1900 jobs.

A separate study of the economic benefits of World Heritage areas also identified the significant economic contribution from the Gondwana Rainforests.

NPWS expenditure

NPWS manages more than 400 parks in the north east region. In 2010-11 more than $66 million was allocated to the management of these parks.

Benefits to Aboriginal communities

Co-management arrangements, including Indigenous Land Use Agreements, MoUs, and Aboriginal owned and lease-back agreements exist across a range of parks in the north east. For example, Worimi Conservation Lands are a co-managed park under Part 4A of the NPW Act; Yarriabini National Park is subject to a MoU with the Dhungutti Gumbaynggirr people; and Gaagal Wanggan (South Beach) National Park near Nambucca Heads is owned by the Gumbaynggirr people and leased back to the NSW Government.

Visitors and tourism - planning, key destinations and marketing

NPWS has a high level of engagement with tourism organisations in the region and works closely with accredited visitor information centres to promote tourism opportunities. NPWS is a partner in touring route campaigns such as the Legendary Pacific Coast, one of the State's largest industry-led collaborative tourism marketing initiatives.

Key visitor destinations and experiences include the World Heritage rainforests, visitor centres, lighthouses, beaches, waterfalls, historic heritage, camping, accommodation, walks, scenic drives and tours. Most parks have visitor facilities and are easily accessed by sealed or graded gravel roads from major towns. A range of commercial tours and activities are also offered in many parks.

Visitor sources and trends

State of the Parks 2010 data indicates that approximately ten million visits are made annually to national parks in the north east. The majority of visitors are family groups or 'grey nomads' (travelling retirees).

Domestic visitors form the majority, particularly from NSW, with smaller proportions from Queensland and Victoria. Visitation to parks is strongly seasonal and numbers peak during traditional holiday periods, particularly during summer. Visitors are attracted by the diversity of natural settings and recreation opportunities and the ease of access.

The most recent NPWS domestic visitation survey data indicates a small decline in visitation from 2008 to 2010, due to significant rainfall and weather events, an increase in Australians choosing to travel internationally, and the strong Australian dollar. This appears to be consistent with broader NSW visitation trends.

Investing in facilities and new opportunities

New visitor and tourism opportunities have been implemented over the last several years, or are in development throughout the region, in accord with the NPWS *Sustainable Tourism Action Plan*.

Highlights include: upgrading of the Sea Acres Rainforest Centre, which attracts over 150,000 visitors per annum; mountain bike riding bike tracks in Glenrock State Conservation Area; TreeTop Adventure Park in Blue Gum Hills Regional Park; installation of horse-float friendly car park facilities at Columbey National Park; and planned upgrades to visitor facilities at Mogo Camping Area (Yengo), Frazer Camping Area (Munmorah), and Putty Beach Camping Area (Bouddi).

Community involvement

There is a high level of community involvement in parks across the north east region. All parks are managed with input from Regional Advisory Committees established under the NPW Act. There are also separate Scientific and Advisory Committees for the Gondwana Rainforests World Heritage Area.

Community consultation occurs for all plans of management, regional pest management strategies, reserve fire management plans, conservation management plans and Aboriginal site management programs. Community and visitor surveys are regularly conducted, and joint research initiatives implemented with regional universities (for example, a MoU with Southern Cross University).

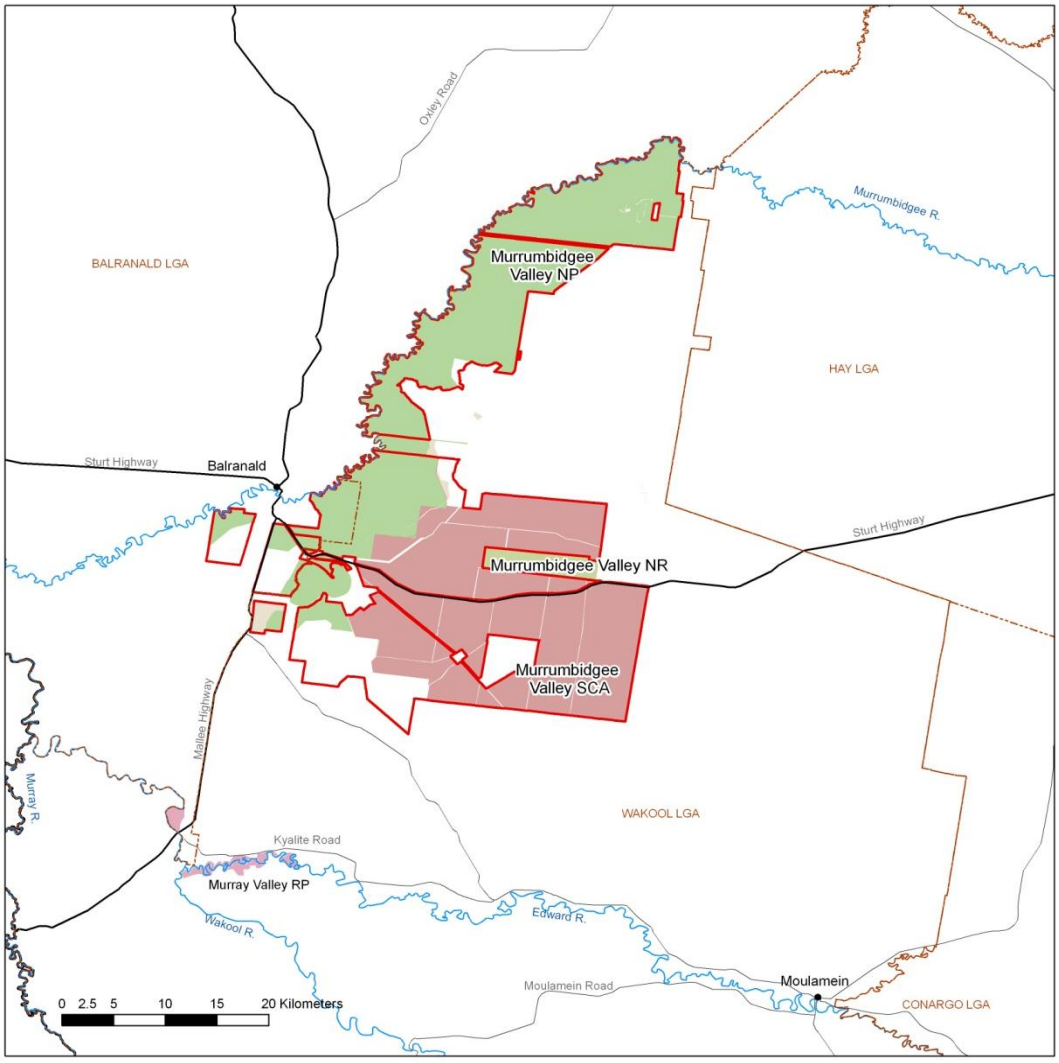
There are a number of long-running volunteer programs in operation, including some that have been in operation for more than 20 years. During 2010, it is estimated that 1,550 volunteers contributed to park management activities in the region with most effort on weed and pest control, for example cane toad removal.

There are also formal cross-jurisdictional arrangements in place. These include a MoU for cooperative cross border management of national parks and other reserves in New South Wales and Queensland, and a MoU between the Department of Defence and NPWS covering co-operative environmental management of the Evans Head Defence Air Weapons Range and adjoining national park land.

1(c)(iii) Yanga Station in Wakool and Balranald Shires

Yanga Station was purchased on 23 November 2005, by the former NSW Government. Yanga National Park was reserved on 28 February 2007 and officially opened to the public on 28 May 2009. Now known as the Yanga Precinct of Murrumbidgee Valley National Park, it is around 70,000 hectares with 170km of Murrumbidgee River frontage. Yanga is mostly located in the Wakool Shire (94%) and partly in the Balranald Shire (6%). The establishment of Yanga involved the transfer of Crown land (primarily the bed of Yanga Lake) and some surrounding land into the National Park estate.

Yanga National Park



Previous use

Yanga station was a pastoral property with a history of extensive irrigation from the Murrumbidgee River and Lake Yanga. Cattle and sheep were major enterprises, taking up about 40,000 hectares of the property. The property's carrying capacity was reducing over time as environmental conditions, and access to water, declined. Lake Yanga, a major source of irrigation water, had been dry for 5 years before the property was sold.

Timber was harvested from an area of about 16,000 hectares of managed forest on Yanga. This was also in decline, with sawn timber volumes falling from 10,000 cubic metres in 1987 to 4,500 cubic metres in 2004.

There were around 14 people employed to run the property. In addition, there was some seasonal casual employment for timber harvesting and shearing. At the time of purchase, the valuer considered the property over-capitalised with irrigation improvements given the amount of water then available.

The reserve establishment process

NPWS interest (new area investigations)

Yanga lies in the Riverina bioregion, which is not well represented in the national parks system. Yanga Station was well known to wetland and waterbird scientists conducting research in the Lowbidgee.

Mr Graeme Black, the principal company director of Yanga Pty Ltd, expressed an interest about the possible sale of the property to NPWS.

Assessment

Following this expression of interest, NPWS officers undertook a thorough inspection of the property, including the botanical condition, plants and animal habitat values. A New Area Investigation Report was prepared to inform further consideration of the property.

Property value

An initial desktop valuation was carried out in December 2004 by the State Valuation Office. A formal valuation was later commissioned from the Office, based on a property inspection and detailed analysis of comparable sales evidence. This was completed in February 2005 and assessed the value at between $23m and $26.5m.

In addition, a business assessment was completed in March 2005 to help verify the valuation. It drew on 10 years of data, including the property's profits and losses, sheep and cattle trading figures, crop yield and income, and timber incomes.

The business assessment identified that the property had, on average over the 10 years, an annual income of $2.49m, expenditure of $2.33m and a gross farm margin of $0.166m, which is a return on capital of <1%. The report concluded that agriculture generally earns about 2% on capital which, when achieved, would give a property value of $24m to $27m.

Funding for purchase

Funds to purchase Yanga were derived from several sources:

- funds held by NPWS;
- Environmental Trust funds identified for land purchase; and
- a Treasury advance, which was later repaid from re-sale of the cropping land components of Yanga.

Settlement and transfer

Final Government approval to purchase Yanga Station was granted on 6 June 2005 for the negotiated price of $25.5m. Contracts were exchanged on 6 July 2005 and the purchase settled on 23 November 2005.

All water entitlements were also acquired. These comprised stock and domestic licences, non-transferable irrigation entitlements, general security entitlements and supplementary entitlements.

On-sale of parts of property

The owner retained an area adjacent to Yanga Lake for potential tourist cabins, and a separate house and land in the north, on the eastern side of the main property, for family use.

The four areas comprising cultivation land in the southern section of Yanga, totalling 6,891 hectares, were sold by NPWS at auction in June 2007. They were bought by local land owners and the gross value from the auction of the four areas from Yanga was $5.83m.

Other areas with cropping potential are currently being considered for disposal.

Reservation

Of the 76,350 hectares purchased, 65,080 were reserved under the NPW Act on 28 February 2007 as:

- Yanga National Park (31,190 hectares);
- Yanga State Conservation Area (33,890 hectares).

Since reservation, small areas have been added to refine its boundaries and optimise management.

Establishing Yanga as a national park

The reservation of Yanga as a national park has opened up a significant property to the public and NPWS has allocated substantial resources to implement pest management programs, restore wetland communities and support visitor access.

Yanga Community Working Group

The Yanga National Park Working Group was established in 2006 to provide advice to NPWS on park management and community relation issues associated with the development of the Yanga National Park Plan of Management.

Up to 20 community members represent all stakeholder groups on the Working Group, including the Mayors and council staff from Wakool and Balranald Shires, neighbouring landholders, the local Aboriginal community, tourism bodies, and other public agencies such as NSW RFS, and the Livestock Health and Pest Authorities.

Employment of former Yanga Station staff

All full time staff working on Yanga who would have otherwise been displaced as a result of the purchase were offered employment with NPWS. There are currently 8 former Yanga staff employed by NPWS.

Planning

Management actions for Yanga are included in the Western Rivers Operations Plan, which is reviewed every 6 months and revised every 12 months under the NPWS planning framework.

The Yanga Conservation Management Plan (completed early 2012) and the Yanga Visitation Establishment Plan (completed in 2010) have also helped to guide management of Yanga to date. Yanga continues to be guided by the River Red Gum Nature Tourism Action Plan.

A draft plan of management is expected to be released for public consultation by December 2012. Yanga has been guided by a Statement of Interim Management Intent since April 2007.

Programs

Key areas of land management focus at Yanga in its initial period of management have included the Yanga Reserves Fire Management Strategy; the Western Rivers Region Pest Management Strategy; cultural heritage management; and the Yanga Forest Health Management Plan.

Operational and environmental impacts

Fire management

The current Yanga Bush Fire Management Strategy was completed in June 2012 (see section 2(a)(i) for discussion of the Bush Fire Risk Management Plan that applies to the whole State). The previous strategy was completed in 2009.

Upon acquiring Yanga, immediate emphasis was placed on enhancing fire management capability at Yanga. This included purchase of bushfire tankers and other machinery, construction of 80 km of boundary trails and a further 250 km of internal trails for fire management.

NPWS staff living on Yanga and in Balranald are fully trained in fire fighting. Additional trained staff and equipment are based at nearby Hay.

Since the acquisition of Yanga, two bush fires have occurred on the property and were suppressed by NPWS and NSW RFS, one covering 1 hectare, and the other 11 hectares. One prescribed (hazard reduction) burn has been completed on Yanga with an additional 6 burns planned.

Pest management

NPWS implemented a comprehensive pest management program as soon as Yanga was acquired. In all operations, there has been cooperation with neighbours and liaison with the Riverina Livestock Health and Pest Authority. Key results since acquisition include:

- **Rabbit control:** 2,786 warrens destroyed by June 2012.
- **Feral Pig control:** By May 2012, 5,085 pigs had been destroyed.
- **Fox control:** By January 2010, 7,500 baits had been laid. Results have shown a decline in population numbers.

- **Deer:** Deer have been controlled over the last 3 years by shooting, and are now considered to be in very low numbers.
- **Goats:** Small numbers of goats have been destroyed by aerial shooting, and are considered to be virtually absent.
- **Locusts:** Locusts reached plague numbers across western NSW in Spring 2010 and bands were sprayed with biological control agents.

Weed management

NPWS has also been actively managing weeds on Yanga since it was acquired. This has included:

- **Boxthorn:** A Weed of National Significance distributed by birds, Boxthorn is widespread across the southern part of Yanga. Thousands of boxthorn bushes have been pulled to date.
- **Spiny burr grass:** This is common in areas originally used for cropping and has also spread along some tracks. It is currently managed by large spraying programs.
- **Tamarisk tamarix rammosissima:** This is a new environmental weed, found on the dry bed of Yanga Lake in 2007. Over 500 plants were destroyed.
- **Bathurst and Noogoora burr:** These weeds are common on agricultural and grazing land. Control programs have focussed on areas adjacent to neighbours, to prevent any spread from the park.
- **Tree of Heaven:** A Weed of National Significance, this weed occurred in a small area in the northern end of the property. The total area was treated by felling and poisoning stumps in 2008 and is now monitored in case of reoccurrence.

Cultural heritage conservation

Work with Aboriginal elders and local Aboriginal representatives on significant sites on Yanga is helping to protect sites and inform visitors of the land's cultural significance.

Significant restoration works are underway to preserve the remarkable historic heritage on Yanga. Many of these sites will be restored to enable them to be reused by the community and park visitors, including buildings in the Homestead Precinct and the Woolshed.

Natural heritage conservation

Yanga National Park is part of a large complex of nationally significant wetlands in the Lower Murrumbidgee. The wetlands support remnant populations of the nationally vulnerable Southern bell frog and are major breeding sites for waterbirds. However, reduced flooding across the Lower Murrumbidgee floodplain as a result of river regulation and floodplain development had resulted in declines in waterbirds, native fish, frogs and the condition of river red gum trees.

Restoring the health of the wetlands will assist in the recovery of waterbird populations in the Murray-Darling Basin, which up until the most recent wet years of 2010-12 have had limited opportunities to breed successfully.

To date, several releases of environmental water using new environmental infrastructure have been vital in maintaining wetland habitat and river red gum forest health. Research findings show significant improvement in environmental condition and ecosystem function.

Economic and social impacts

Local government

The Council rates payable for Yanga in 2004 were:

- **Balranald Shire Council:** $10,600. Total revenue from rates and annual charges for 2004-05 were reported to be $1.535 million, which means Yanga contributed 0.69%. Balranald Shire Council's total ordinary revenue in 2004-05 was $7.142 million which means that Yanga contributed 0.15%; and
- **Wakool Shire Council:** $48,400. Total revenue from rates and annual charges for 2004-05 were reported to be $3.862 million, which means Yanga contributed 1.25%. Wakool Shire Council's total ordinary revenue in 2004-05 was $12.949 million which means that Yanga contributed 0.37%.

Neighbours

Since acquiring Yanga, NPWS staff have met individually with each neighbour, held neighbours meetings, and established the Yanga Community Working Group. Because many NPWS staff worked previously on Yanga Station, solid working relationships between staff and neighbours and issues have been established.

NPWS expenditure

The purchase of goods and services by NPWS, as well as salaries for local staff, can provide significant inputs for local businesses, with associated flow-on and multiplier benefits.

Between 2005 and 2012 it is estimated that more than $8 million has been spent across the local governments of Hay, Balranald and Wakool. Local businesses in Wakool and Balranald have benefited from the NPWS policy of buying locally, because Yanga Station tended to purchase its goods and services from larger regional centres.

Aboriginal people and communities

NPWS is committed to developing a co-management arrangement with the local Aboriginal community to foster and develop a strong relationship that provides opportunities for working and participating in park management activities and programs on Country. Discussions with Aboriginal elders are ongoing in an effort to enter into co-management arrangements in the future.

Visitors and tourism

Yanga is one of the largest national parks in the region and is becoming a destination for travellers to Outback and Riverina NSW.

Yanga National Park provides great opportunities for recreational fishing along the Murrumbidgee River and access has increased since it was acquired and opened to the public. Since Yanga Lake has filled, water based recreation opportunities have increased, particularly with recently enhanced boating facilities.

Visitors are also drawn to Yanga's wonderful display of woodland and water birds and rich wildlife, especially following the recent drought and subsequent floods, which covered most of the park. There is a bird hide, which allows visitors to view birds up close in a secluded and natural environment.

Yanga is rich in Aboriginal history, which is evident at various locations in the park. The rich European heritage has been wonderfully preserved at the homestead and woodshed precincts where visitors can learn about Yanga's pastoral history.

NPWS has made significant investment in visitor facilities and supported marketing of tourism opportunities. For example, there is a new lookout over Yanga Lake, a new picnic and camping area named 'Woolpress Bend', as well as improved boating facilities.

The River Red Gum Nature Tourism Action Plan includes Yanga. This incorporates marketing, promotion, experience development and community engagement initiatives. Yanga is also featured in the Outback marketing campaign, the new NPWS website and travel-style magazine, including itineraries promoting the region.

Visitor numbers

In 2010, NPWS started monitoring visitor numbers. Analysis of data from traffic counters indicates annual visitation to Yanga during 2010 and 2011 is estimated at approximately 19,000 visits per annum with 5,000 visitors in up to May 2012.

There was a slight reduction of visitors in the first quarter of 2011 and 2012 because of flooding. However, numbers are recovering with 2012 shaping up as a good year. Park visitation is continuing to steadily increase with active marketing by local councils, NPWS and regional tourism bodies, as well as improved road signage and word of mouth amongst tourists about a relatively new visitor destination.

Community involvement

Community involvement with Yanga continues to increase as the park is established and its various programs implemented. This is highlighted by the Friends of Yanga, a group of committed, and predominantly retired, locals who meet weekly to restore and recreate the colonial gardens that existed at Yanga in the 1950's, with the guidance of the Royal Botanic Gardens.

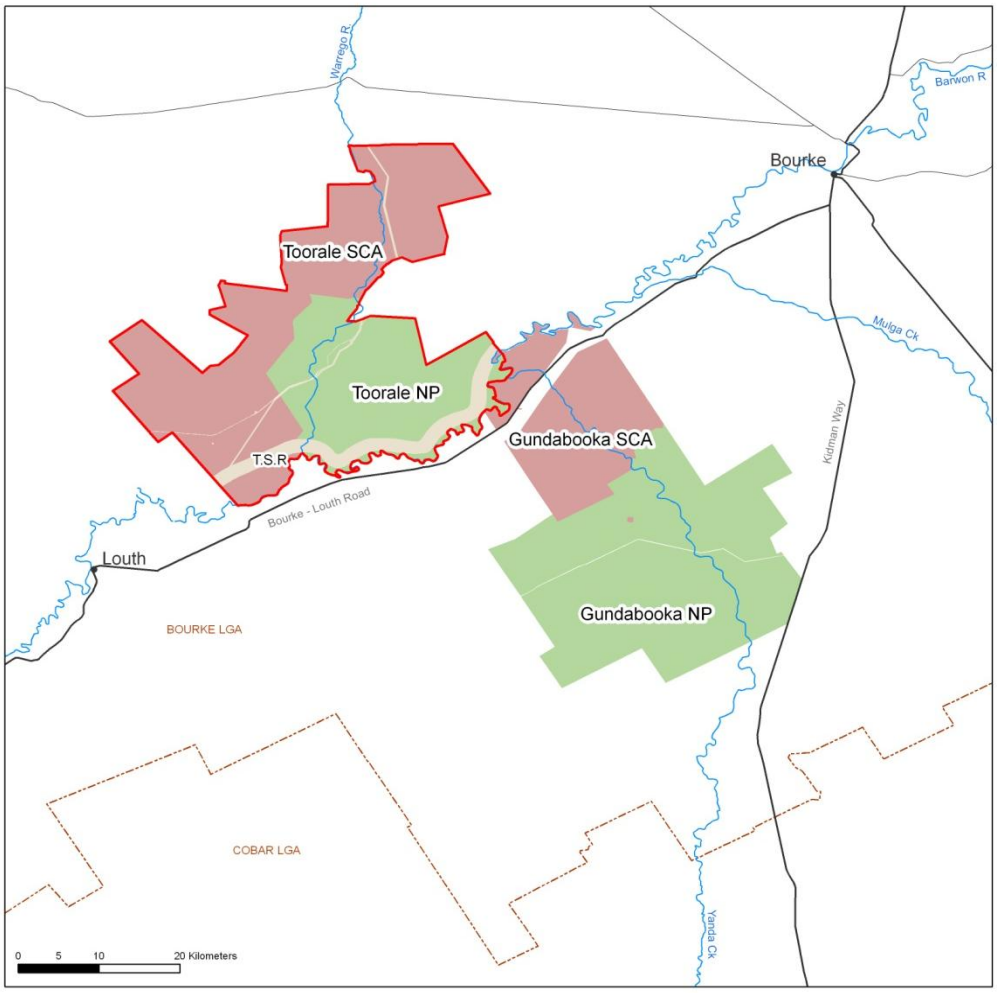
Membership of the Friends group has grown steadily over the years to 10 volunteers meeting once a week accruing a total of 339 hours per year. The Friends of Yanga were recently recognised for their contribution to the local community when they won an Australia Day award in 2012, granted for their work in rebuilding the historic gardens at Yanga Homestead.

Restoration works in the gardens have benefited the local community, with the new gardens attracting weddings, visitor coaches and other special events, including the 2011 NSW Inland Tourism Awards.

1(c)(iv) Toorale Station in Bourke Shire

In December 2008, the former NSW Government purchased Toorale in partnership with the Commonwealth. Toorale is a 91,383 hectare property approximately 83 kilometres to the south-west of the town of Bourke in western NSW.

Toorale National Park and State Conservation Area



Previous use

Toorale has a long pastoral history. It was one of the first stations on the Darling River, being taken up in 1857.

At the time Toorale was purchased by the NSW Government, Clyde Agriculture was using Toorale to grow irrigated crops such as cotton, sorghum and wheat subject to water availability. Clyde also ran livestock enterprises including beef cattle and merino sheep, moving stock between its other properties in the district in response to pasture availability. The Rural Land Protection Board (now Darling LHPA) rated Toorale as having a carrying capacity equivalent to 33,000 flock sheep.

At the time contracts were exchanged for the purchase, Clyde Agriculture employed 6 full-time permanent staff on Toorale.

Conservation values

Toorale has conservation values, significant historic heritage and cultural importance to Aboriginal people and communities, including those who once worked on the station.

Natural heritage values

The property incorporates high resource wetland, floodplain and riparian habitats, and stretches over three bioregions which were poorly represented in the national parks system: the Darling Riverine Plains, Mulga Lands, and a small area of the Cobar Peneplain bioregion.

At the time of purchase, the Darling Riverine Plains bioregion was the State's least reserved bioregion at 1.7% of its total area. Now, this figure is at 2.46%.

Toorale provides some of the best habitat in the area, supporting a wide range of native plants and animals, and providing an important green corridor connecting with Gundabooka National Park and State Conservation Area on the other side of the river.

There are hundreds of native plants and rare vegetation communities on Toorale. The diversity of plants supports an unusually diverse variety of native animals on Toorale, including 14 species listed as threatened in NSW.

Cultural heritage values

Toorale is rich in both pastoral and Aboriginal cultural heritage. Considered an icon of Australian pastoral heritage, it has a heritage listed historic homestead and the shearing shed was built in 1873 (where Henry Lawson worked as a rouseabout in 1892).

The land around the lower Warrego River is a highly significant part of the cultural landscape of the Kurnu – Baakandji (Paakandji) Aboriginal people. The country between the Warrego and Darling Rivers is central to Kurnu creation stories and traditional cultural practices.

Many Aboriginal people today also have a strong and ongoing contemporary connection to Toorale as a pastoral property, having worked on the Station for many generations over the past 150 years.

The reserve establishment process

NPWS interest (new area investigations)

The conservation values of Toorale were first formally recognised by NPWS in 1983 when a large area of the property (49,190 hectares) was established by the then owners as a Wildlife Refuge under the NPW Act.

Assessment

The assessment of the potential impacts and the case for converting Toorale to a national park began in 2002. Various landscape assessments and biodiversity surveys undertaken between 2002 and 2004 confirmed the significant conservation values of the property.

Property value

The valuation for Toorale was undertaken in September 2008 by Land and Property Information Valuation Services.

The market valuation estimated $21 million to $23 million for both the land and water. This included the value of land, fixed improvements and water, reflecting the tied link between water entitlements and land titles. The valuation dissected the property into its component land types and valued each separately. It also did the same with the various categories of water entitlements. The valuation compared the property with six sales in relation to providing market evidence.

Vendor motivations

Mr John McKillop, the Managing Director Clyde Agriculture, expressed an interest in selling Toorale and the then Director General of the then Department of Environment and Climate Change (DECC) visited Toorale on 23 October 2008 to discuss the property.

Consultation

In the process of considering reservation options, NPWS met with the Board of the Darling Livestock Health and Pest Authority in May 2010 to discuss the travelling stock routes and it was agreed they would not be reserved.

NPWS also met with Bourke Shire Council in March 2010 to discuss the exclusion of the Paka Tank - Tilpa road and to discuss needs for continued Council access to gravel quarries on Toorale. It was agreed that these areas would not be reserved as part of the national park.

Acquisition

As part of the final purchase stages NPWS staff inspected Toorale on 9 September 2008. As noted above, surveys and information had been gathered on the property over the previous several years. On 10 September 2008, contracts were exchanged for the purchase of Toorale for $23.75 million.

The purchase price was funded through three separate programs:

- Commonwealth's Water for the Future program (48%);
- Commonwealth's National Reserve System (NRS) program (35%); and
- NSW funding contribution of $4.13 million (17%), derived from repayments from the Commonwealth NRS program for other properties already acquired using State funds and also capital funds already held in the reserve establishment program.

The State and Commonwealth funding agreement

The Toorale Funding Agreement was signed by Commonwealth and NSW representatives in December 2008. Under the agreement:

- The land titles to the property are vested with the State to be reserved in perpetuity under the NPW Act.
- The transferrable water entitlements purchased on the Warrego and Darling Rivers are held by the State and managed at the direction of the Commonwealth until such times as they are permanently transferred to the Commonwealth.

Reservation

On 26 November 2010, those lands acquired in the purchase of Toorale which were able to be reserved were gazetted under the NPW Act as:

- Toorale National Park (30,866 hectares); and
- Toorale State Conservation Area (54,385 hectares).

Establishing Toorale as a park

During the transition from pastoral property to national park, NPWS has actively managed the property, ensuring an on-site management presence, developing infrastructure, acquiring equipment, and initiating community programs and visitor experiences.

New works have included establishing a works depot, chemical and fuel storage areas, replacement of all sewage systems for houses on park, fencing and stabilisation of the historic homestead, new park entry signs, as well as erosion mitigation works for fire trail construction.

Maintenance works undertaken so far include; termite inspection and control in degraded heritage buildings, maintenance of internal roads, maintenance of the domestic water supply, repairs to dam walls, and replacement of lengths of boundary fencing with neighbours.

Planning

The formal process to develop a plan of management for Toorale is due to commence this year. In the meantime, since the property was acquired, various planning initiatives have been undertaken, as shown below.

Toorale planning initiatives

Name of the Plan	Purposes	Status
Interim Management Guideline	Establishes how the State will manage Toorale prior to a Plan of Management	Complete
Park Water Management Plan	Establishes how the State will manage water on the Toorale	In preparation
Environmental Watering Plan	Establishes how the State, jointly with the Commonwealth, will manage water entitlements	Complete

Programs

Key areas of land management focus at Toorale in its initial period of management have included fire management, pest management, weed management, cultural heritage management and water management.

Operational and environmental impacts

Fire management

The current Toorale Fire Management Strategy was completed 30 June 2009. Because Toorale was private property, it did not have any known fire management plan or strategy in place before it was acquired by NPWS.

Once purchased, immediate emphasis was placed on building an appropriate fire management capability at Toorale through the purchase of equipment and the training of

staff. Internal fire trail maintenance and road side slashing has been regularly undertaken as have works to reduce fuel hazards.

There have been two bush fires on Toorale caused by lightning strikes. Both fires were contained within Toorale, burning an area of 108.67 hectares in total. Hazard reduction burns are planned for August-September 2012, subject to suitable weather conditions.

Pest management

NPWS has implemented a comprehensive pest management program targeting feral animals on Toorale:

- **Feral pigs:** Eight aerial shoots have been undertaken and 10,182 feral pigs have been destroyed.
- **Feral goats:** The feral goat removal program has removed 13,736 goats. Professional goat musterers are used, working on a contract basis, who then sell goats in regional areas, including Bourke.
- **Locusts:** Locust control through on-ground spraying and monitoring is undertaken in cooperation with the Darling Livestock Health and Pest Authority and the Locust Control Taskforce.

Weed management

NPWS has also been actively managing weeds on Toorale since it was acquired. This has included:

- **Parkinsonia:** A Weed of National Significance, this was present on Toorale when it was purchased and has been removed through spraying. Monitoring is ongoing.
- **Broadleaf weed:** Control is ongoing.
- **Nagoora Burr:** Control is also ongoing.

Cultural heritage management

A range of heritage studies have been undertaken. In addition, targeted Aboriginal site surveys and archaeological assessments have been completed for the development of boundary fire trials and new fences.

Priority works have been undertaken to stabilise historic buildings whose condition had deteriorated prior to the purchase of Toorale.

Natural heritage management

Management of the natural heritage values of Toorale, particularly the floodplains, wetlands and in-stream aquatic environments, is a continuing focus for water management at Toorale. Water recovered from the environment will also contribute to increased flows in both the Warrego and Darling rivers to Menindee Lakes, enhancing the ecological health, water supply security and water quality of a significant part of the Darling River system.

The existing water infrastructure on Toorale is currently managed by NPWS in accordance with licence conditions and any directions issued by the Commonwealth. Future management of water infrastructure, and potential partial decommissioning options to improve environmental flows, are under active discussion with the Commonwealth.

Economic and social impacts

Local government

Bourke Shire Council has voiced concerns in the past about the purchase of Toorale, primarily about the effects of the cessation of agricultural production on the local economy, and a reduction in Council rates being paid.

The Council rates payable for Toorale in 2008/09 were $46,196. At the time, it is understood that Bourke Shire Council publicly reported that this represented 4% of its rating income. It is understood that this related to income from farmland rates only, and did not include all rates income to the Council.

According to data reported by Council to the Division of Local Government, total revenue from rates and annual charges in that period for Bourke Council was $2.925 million. This means that the rates from Toorale represented 1.6% of that amount.

Bourke Shire Council's total ordinary revenue for 2008/09 was $18.42 million, including $10.4 million from government grants, contributions and donations. In the same year, interest revenue was over $400,000 or 2.19% of total ordinary revenue. Toorale rates in 2008/09 therefore contributed 0.25% of Bourke Shire Council's total ordinary revenue.

Neighbours

NPWS staff have met with neighbours to discuss the establishment of Toorale. Meetings have discussed the planned works programs, enabled neighbours to raise any issues they may have and assisted in maintaining good relations. In addition, NPWS staff talk to neighbours as needed about specific issues such as negotiating boundary fencing agreements (a number are underway), access through their property to Toorale, and the movement of stock. Neighbours are also involved in cooperative work programs, in particular pest control works.

NPWS expenditure

The purchase of goods and services by NPWS can mean significant incomes for local businesses, with associated flow-on and multiplier benefits. In 2010-11 approximately $2.24 million was expended on salaries and capital projects at Toorale.

Aboriginal people and communities

Since acquiring Toorale, NPWS has engaged with Aboriginal traditional owners and provided opportunities for access. Two 'Back to Country' gatherings and one culture camp have been held to date (May 2009, October 2010 and May 2012).

Formal joint management arrangements were commenced in May 2012, when a Memorandum of Understanding between NPWS and the Kurnu Baakandji / Paakandji people was signed at a ceremony at Toorale. The MOU sets out the principles and agreements for how NPWS and the Kurnu Baakandji / Paakandji people will work together to manage Toorale and ensures involvement of Aboriginal people in the protection and conservation of important cultural values.

Members of the Aboriginal community have also been trained in staff selection, governance, in digital media programs to record oral histories and have participated in tourism workshops.

Visitors and tourism

To inform the provision of quality visitor experiences, in late June 2012 the Minister for the Environment Robyn Parker MP announced the development of the Toorale and Gundabooka Visitation Strategy, which is expected to be launched in August 2012. The Strategy will sets out a framework for the development, marketing and communication of visitor experiences over the next 5 years. The strategy also identifies the potential for commercial partnerships and for Aboriginal enterprise development.

In preparation of the Strategy, NPWS has consulted with local councils, the Inland Tourism Organisation, local business representatives from Bourke and Cobar, and local recreational fishing representatives.

The main drawcards for Toorale will be its rich pastoral history, significant Aboriginal heritage, scenic landscapes, and its rivers and wetlands, which attract unique Australian wildlife, particularly the birds that visit and breed in Toorale's wetlands. Toorale's attractions are complementary to, and will be developed in the context of, the authentic 'outback' experience that visitors associate with the region.

Over the next year, access will be provided through Toorale to the Darling River for fishing, camping, wildlife viewing and sight-seeing. Work will also commence during 2012/13 on the first stage of developments. One of the first projects will be the construction of a lookout on Acton Hill off the Bourke-Louth Road, which will give visitors a spectacular panoramic view across the plains to Mt Gundabooka. There will also be tours of the park on offer and promotion of tourism drives in the region.

2. Management practices on public land

Terms of reference

2. *The adherence to management practices on all public land that are mandated for private property holders, including fire, weed and pest management practices.*

2(a) Fire management

Bush fires are a natural and inevitable part of the Australian landscape, and NSW is one of the most fire-prone areas in the world. The Government's paramount objective for fire management is to safeguard human life and property. This objective overrides all others, including the conservation of the natural environment.

2(a)(i) Coordinated fire fighting in NSW

The NSW Rural Fire Service (NSW RFS) and Fire and Rescue NSW (FRNSW) are the two agencies primarily responsible for providing fire services to communities in NSW, with NSW RFS the lead agency for the prevention and suppression of bush fires. In addition, NPWS and Forests NSW maintain a significant fire fighting capability and are recognised as fire fighting authorities in the *Rural Fires Act 1997*.

These four fire fighting authorities work together and operate under a tenure blind approach, illustrated via the *Bush Fire Coordinating Committee Policy 2/06 Management of Bush Fire Operations.* The agencies are subject to the *State Bush Fire Plan*, which is a sub-plan of the *State Disaster Plan*, under the *State Emergency and Rescue Management Act 1997*.

Additionally, the Commissioner of the NSW RFS possesses extremely broad powers to ensure that long before severe fire weather conditions eventuate, appropriate interaction and coordination between the respective agencies is occurring.

The principal mechanisms for coordinated and cooperative fire management arrangements operate through the Bush Fire Coordinating Committee and local Bush Fire Management Committees.

Furthermore, if a bush fire is beyond local capabilities and/or the prevailing conditions are conducive to a bush fire emergency, the Commissioner can invoke section 44 of the Act which provides him/her with the power to take charge of bush fire fighting arrangements in NSW. The Commissioner will normally exercise this authority by appointing a specific person, an Incident Controller, to do so on his behalf.

Bush Fire Coordinating Committee

The Bush Fire Coordinating Committee (BFCC) is a statutory body constituted under section 46 of the Act. The Commissioner is the chairperson of the BFCC.

The BFCC's functions are set out in the Act and include planning in relation to bush fire prevention, coordinating fire fighting operations and advising the Commissioner on prevention, mitigation and coordinated bush fire suppression across the state. A major function of the BFCC includes the approval of bush fire management plans, both risk management and operational, prepared by local BFMCs.

Membership of the BFCC is set out in the Act, and includes key agencies and stakeholder representatives. Officers of Forests NSW, NPWS and Crown Lands Division are members.

Bush Fire Management Committees

Section 50 of the Act requires the BFCC to form a Bush Fire Management Committee (BFMC) for every Rural Fire District and every Fire District where there is a reasonable risk of bush fires. There are currently 67 BFMCs across NSW.

The main purpose of BFMCs is to facilitate cooperation between organisations, agencies and the community resulting in coordinated bush fire management at the local level.

Section 52 of the Act requires the BFMCs to prepare:

- a plan of operations setting out how the agencies present in the BFMC area will integrate and coordinate themselves to protect the community from bush fires; and
- a bush fire risk management plan (BFRMP) setting out those activities necessary to mitigate bush fire hazards.

BFMC membership is set out in Clause 14 of the *Rural Fires Regulations 2008*. It is similar to, but not the same as, the BFCC, and includes local representatives of the fire services, major government land managers, community representatives and other organisations (including NPWS, Forests NSW, NSW Farmers Association, local NSW RFS volunteers and Crown lands) with interests in bush fire management.

Bush Fire Risk Management Plans

The BFRMP is a strategic document which identifies assets within the community at risk from bush fire, assesses the level of risk to those assets, establishes treatment options and allocates responsibility for carrying out those treatments. The BFRMP is used to determine such things as where mechanical clearing or hazard reduction burns are conducted, which areas require specialised fire protection, and which areas need to be targeted for community education.

A critical part of the plan is to actively seek input from the community. This is achieved through a variety of methods, including community meetings. Plans are publicly exhibited and opportunities for community feedback are actively sought. BFRMP developed under *BFCC Policy 01/08 – Bush Fire Risk Management*; provide for a comprehensive approach to planning, prioritising and reporting of hazard reduction works.

Plans of Operations

Plans of operations are used to identify and coordinate member agencies' local capabilities, resources and the actions required in the event of a bush fire.

The BFCC's instructions for BFMCs are contained in BFCC policy *1/2006 - Bush Fire Management Committees*.

2(a)(ii) Hazard reduction

Hazard reduction is an activity carried out for the purpose of reducing fuel loads. 'Bush fire hazard reduction' is defined in the Rural Fires Act as:

- the establishment or maintenance of fire breaks on land, and

- the controlled application of appropriate fire regimes or other means for the reduction or modification of available fuels within a predetermined area to mitigate against the spread of a bush fire,
- but does not include construction of a track, trail or road.

Hazard reduction encapsulates a range of activities but it is predominantly carried out by burning or mechanical/manual works. Mechanical/manual works include the removal of fuels using heavy machinery such as bulldozers, tritters, mowers and hand held tools such as chainsaws, brush cutters, rakes and the use of herbicide sprays for removing weed species only.

Properly carried out, hazard reduction can reduce the spread and severity of bush fire by reducing the amount of fuel available to the fire. However, as many other circumstances are involved in determining fire behaviour, hazard reduction does not prevent or eliminate bush fires.

Similarly, once a bush fire ignites and takes hold, suppression operations will not always be able to extinguish it, particularly in extreme bush fire weather conditions. Nevertheless, hazard reduction used in conjunction with building design, defendable space, community engagement and fire suppression all contribute to provide a comprehensive suite of strategies for bush fire management.

There are also different types of hazard reduction zones identified within bush fire risk management plans, each with specific purposes and characteristics.

- Asset Protection Zones provide for immediate protection of the bushland with assets on the urban interface.
- Strategic Fire Advantage Zones provide for areas of reduced fuel which can slow the pace of a bush fire and/or assist in suppression activities during a bush fire.
- Land Management Zones provide for additional fuel management at depth within the landscape and may also provide other benefits (e.g. ecological burning).

Legislative requirements of hazard reduction

Section 63 of the Rural Fires Act imposes a duty on all land holders – public and private – in relation to the prevention of fire spreading on or from their lands. The Commissioner of NSW RFS has a range of powers within the Act (sections 66-70, 73, 74) to ensure bush fire hazard reduction compliance by both public and private land holders.

The Commissioner is empowered by the Act to direct the removal of hazards on private lands or public lands. The Commissioner is also empowered to carry out bush fire hazard reduction works on any land if the owner or occupier has not properly performed a duty under section 63, or as required by a bush fire risk management plan. The Commissioner may undertake the necessary work and recover the costs.

Hazard complaints by tenure

In the wake of the 2001/02 NSW bush fires, amendments were made to the Act to increase accountability of public land managers.

In 2002, legislation was introduced to enable complaints to be made about bush fire hazards on public lands to the NSW RFS Commissioner. This however, did not apply to private lands

as these requirements were already in place for some years. The legislation resulted in an over-arching tenure blind approach to the identification and treatment of bush fire risks for both public and private land.

The NSW RFS has been collecting data on the level of complaints against all agencies and property owners, since the introduction of the arrangements for resolving complaints in 2002.

The following table illustrates the level of complaints and proportion against each agency or other land manager (local government and private) over the five reporting periods.

Hazard complaints by tenure for the reporting periods 2007/08 to 2010/11

Tenure	2007/08		2008/09		2009/10		2010/11		2011/12	
	No.	%	No.	%	No.	%	No.	%	No.	%
Private	1,599	79.1	2,011	76.3	2,376	72.46	2,485	80.4	1373	70.6
Council	243	12	369	14	554	16.9	323	10.4	403	20.7
NPWS	22	1.1	46	1.7	65	1.98	17	0.5	15	0.8
Crown land	55	2.7	110	4.2	155	4.73	71	2.3	49	2.5
Forests NSW	2	0.1	4	0.2	6	0.18	2	0.1	1	0.1
Others	77	3.8	73	2.8	89	2.71	126	4.1	71	3.6
Unknown	23	1.1	22	0.8	34	1.04	67	2.2	34	1.7
Total	**2,021**	**100**	**2,635**	**100**	**3,279**	**100**	**3,091**	**100**	**1,946**	**100**

It should be noted that while the NSW RFS has the legislative means to determine a hazard complaint on public and private lands, this is specifically related to a threat of an asset (normally a home). The NSW RFS however, does not have a broader role in determining overall fuel management strategies for land management agencies.

Hazard reduction targets

In 2011, the Government announced its desire to see a policy for significant increases in the amount of hazard reduction works carried out in the State.

NSW has not adopted the approach recommended by the 2009 Victorian Bushfires Royal Commission, which was to establish hazard reduction targets of 5% for public lands was not supported by NSW. The rationale for this position was that a hectare-only target does not look at the location and nature of the risk in a holistic sense, or the number of properties benefiting from treatment.

Focusing on a hectare-only target can lead to perverse outcomes such as:

- an emphasis on remote, large area burns to achieve the target, at the expense of smaller, more resource intensive burns that provide direct protection for more properties; and
- a ‘burn at all costs’ attitude, which may lead to burning under marginal conditions in pursuit of the target, with adverse impacts on crew safety, biodiversity and the increased potential for fire escapes.

A more effective approach, taken by the NSW RFS and NSW agencies, is to increase the number of properties protected by hazard reduction works across all bush fire prone land tenures. The NSW Government provides for this in *NSW 2021*, which sees targets to

increase the amount of hectares treated linked to the number of properties protected across the State.

Specifically, in *NSW 2021* the Government commits to:

- increasing the number of properties protected by hazard reduction works across all bush fire prone land tenures by 20,000 by year 2016; and
- increasing the annual average level of area treated by hazard reduction activities by 45% by 2016.

The NSW approach addresses bush fire risk across the whole landscape, irrespective of land tenure, to ensure the implementation of an integrated treatment program.

Agreed agency properties protected targets

Bench mark (#)	**128,593**				
Record owned by	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**
Crown Lands Division	28,543	29,373	30,203	31,032	31,862
LGA	46,383	47,600	48,816	50,032	51,249
NPWS	12,853	13,180	13,507	13,834	14,161
Other	777	800	824	847	870
Forests NSW	1,158	1,193	1,228	1,263	1,297
FRNSW	3,766	3,879	3,993	5,106	4,219
RFS	45,952	47,608	49,263	50,918	52,573
State target	**132,793**	**136,793**	**140,793**	**144,793**	**148,793**

Agreed agency hectares targets

Bench mark (ha)	**128,993**				
Land tenures	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**
ARTC	219	235	253	272	292
CA	325	350	376	404	435
Commonwealth	102	110	118	127	136
Crown land	2,082	2,239	2,407	2,589	2,783
Council	9,349	10,052	10,809	11,623	12,499
NPWS	100,975	108,579	116,755	125,546	135,000
Other	2,045	2,199	2,364	2,542	2,734
Private	8,336	8,964	9,639	10,365	11,145
RailCorp	181	195	209	225	242
RTA	473	508	546	588	632
Forests NSW	15,814	17,005	18,285	19,662	21,143
State target	**139,900**	**150,435**	**161,762**	**173,943**	**187,041**

Hazard Reduction Reporting

Section 74 of the Act requires all land management agencies to report to the Commissioner each year on their activities to reduce bush fire hazards. These activities are included in the NSW RFS Annual Report. The Service also reports quarterly to government on the targets contained in *NSW 2021.*

Independent Hazard Reduction Audit Panel

The NSW Government has established the Independent Hazard Reduction Audit Panel to review hazard reduction reporting and performance, as well as fire trail maintenance works.

The aim of the Independent Hazard Reduction Audit Panel is to use an evidence-based approach to conduct a review of hazard reduction programs across NSW and provide recommendations to the Minister for Police and Emergency Services in relation to potential enhancements.

The Panel includes senior representatives from relevant government agencies including the Chief Executive Officer of the Ministry for Police and Emergency Services, the Commissioner of the NSW RFS, the President of the NSW RFSA and two additional technical experts.

The role of the panel is to:

- audit current bush fire hazard reduction arrangements across NSW;
- make recommendations for achieving the hazard reduction targets outlined in *NSW 2021*;
- identify any issues likely to impede effective hazard reduction and the achievement of the *NSW 2021* targets;
- make any additional recommendations aimed at enhancing the conduct of bushfire hazard reduction in NSW as determined necessary; and
- consider how hazard reduction fits in with the broader issue of community resilience and the protection of the community and other assets.

Environmental Approvals

Currently, likely environmental impacts must be considered in undertaking hazard reduction activities. Environmental considerations range from pollution and associated health impacts through to biodiversity.

The Rural Fires Act provides a streamlined environmental assessment process and approval for those bush fire hazard reduction works that are unlikely to have a significant adverse effect on the environment. The Act does this via an Environmental Assessment Code (the Code). The key principle of the Code is that private citizens were no longer responsible for environmental approvals for genuine hazard reduction. Rather, it is to be carried out by councils and ultimately the State.

The Code identifies key indicators of environmental risk for each environmental issue. Pre-determined management conditions can then be applied to mitigate impacts. Environmental issues covered by the Code include for example; soil, water, riparian vegetation, biodiversity, cultural sites, smoke and weeds.

The Code also identifies circumstances where the potential for a significant environmental impact cannot be eliminated. This does not mean that hazard reduction works cannot proceed, only that these works require a more detailed assessment under the regular environmental assessment legislation *(Environmental Planning and Assessment Act 1979)* such as a Review of Environmental Factors (REF).

The NSW RFS undertakes such assessments for private landholders for essential hazard reduction works. Further, major public land management authorities certify hazard reduction works on their own land using this streamlined system.

The overwhelming majority of bush fire hazard reduction works in NSW have been approved under the Code. There are approximately 3,500 Hazard Reduction Certificates issued under the Code each year. This process has effectively addressed the previous impediments to obtaining environmental approvals for bush fire hazard reduction in NSW.

The Code's success is in large part due to the input of fire fighting authorities, land managers, environmental regulators and key stakeholders including the NSW Farmers' Association and the Nature Conservation Council of NSW. This approach provided environmental regulators with confidence that environmental issues under their auspices were dealt with adequately, and allowed fire fighting authorities and land managers to ensure that necessary hazard reduction works could be implemented practically.

Funding of mitigation works

The NSW Government has over many decades supported the funding of hazard reduction activities and fire trail maintenance on local government property, Crown land and to a lesser extent private property. In 2007/08 and again in 2010-11 funding was significantly increased through enhancements from the State Government to further boost hazard reduction.

These funds are provided to mitigate the key risks across the State, taking into consideration those risks that local BFMC's have identified in their local areas.

The government allocates approximately $35m per year to the NSW RFS for the following programs:

- State Mitigation Support Services enabling volunteer brigades to undertake essential hazard reduction activities. Up to 140 NSW RFS personnel are dedicated to supporting NSW RFS brigades through the preparation of control lines for hazard reduction burns, creation and maintenance of Asset Protection Zones (APZs), assistance with managing Strategic Fire Advantage Zones (SFAZs), works under the Assist Infirm Disabled and Elderly Residents (AIDER) program, assistance with hazard reduction burning and support during operations.
- NSW RFS Mitigation Grant Funds to support state agencies, local government, land managers and Rural Fire Brigades complete critical hazard reduction works and upgrade strategic fire trails state wide. Local Government to assist in managing bush fire hazards on council land including council road sites, council reserves, council depots, garbage tips, playing fields – or any public amenity that borders or is adjacent to bushland. The provision of funding through these programs is conditional on funds being used to carry out more work and not replace normal expenditure by land management agencies.

There is also a further allocation under the Natural Disaster Resilience Program (NDRP). The NDRP is a four year Commonwealth-State partnership to improve the nation's disaster resilience. This program is operated in partnership with the States and Territories, which match the Commonwealth funding.

The arrangements established under the NDRP enable States and Territories to more effectively prioritise and address a range of disaster risks, support emergency management

volunteers, ensure appropriate emergency management capability and improve the disaster resilience of communities.

Land management agencies will also have additional funds allocated within their own budgets for hazard reduction works and fire trail maintenance.

Fire Trail Registers are established by each local bush fire management committee in accordance with the requirements of the *BFCC Policy 2/2007 Fire Trails*. Under the policy, BFMCs must regularly maintain and update a fire trail register for their area of responsibility.

These registers record information for administrative, planning and operational purposes including location, strategic value and vehicle carrying capacity. A copy of the BFCC Policy 2/2007 is attached to this submission.

A major consideration in determining the status and funding of fire trails is the balance between the suitable provision of access for fire-fighting purposes and the need to limit access along fire trails into bushland areas which may promote access for arson.

The decision on the size and scope of a fire trail network is taken at the local level, and involves land management agencies and other interested groups such as volunteer brigades, relevant state and local government entities and private landholders. These groups are, after all, best placed to determine the right balance for access issues.

2(a)(iii) Fire management in national parks

In the past ten years, 2,500 bush fires have burnt on parks and reserves, affecting over 2.1 million hectares. On average, fires in national parks account for less than five per cent of the total number of bush fire incidents in NSW (1.5% in 2010-11).

While NPWS manages 25% of fire-prone land in NSW, it consistently undertakes almost 50% of the hazard reduction activities across the state. In 2010-2011, this figure was 75%.

More than 20% of fires affecting national parks started on neighbouring lands.

NPWS prepares fire management strategies for all national parks, guided by the NPWS *Fire Management Manual*. These are developed in close consultation with the community, neighbours, fire authorities and relevant bush fire management committees, to ensure the integration of natural, cultural and community values, and responsiveness to threats.

For the last two years hazard reduction activity has been hampered by wet weather. Nevertheless NPWS still completed more burning than any other land manager in 2010-11, and almost as much as every other land manager combined.

During 2010-11, NPWS completed 159 burns, treating a total of 56,060 hectares. In 2011-12, 204 burns were undertaken covering over 46,000 hectares. In comparison, in the drier year of 2009-10, 269 burns were carried out by NPWS over 93,000 hectares.

In the five years to June 2011, NPWS carried out more than 800 hazard reduction operations totalling nearly 280,000 hectares. Over this period, the average annual area treated was approximately 56,000 hectares, which was an increase of more than 34 per cent, relative to the previous five-year period.

NPWS fire-fighting capacity includes a workforce of more than 1,100 frontline fire fighters, including around 400 remote-area fire fighters, around 400 incident managers, and more than 110 aviation specialists. NPWS maintains more than 37,000 kilometres of roads and trails vital for hazard reduction burning and wild fire suppression.

Recent enhancement funding ($82.4 million over 5 years) will double NPWS fire-fighting effort to around 800 individual burning and mechanical fuel treatment activities per annum, working towards a total area of 135,000 hectares of national parks treated annually.

2(a)(iv) Fire management in State forests

Fire management and control is particularly important for fire-sensitive forests such as pine plantations, red gum and cypress. Forests NSW also uses fire to reduce fuel after timber harvesting operations and to create seed beds for newly regenerating seedlings in native forests, and to control weeds and pests.

Forests NSW has a statutory obligation to manage and control bush fires on its estate and undertakes this in accordance with requirements and procedures established by the Rural Fires Act, and with conditions and prescriptions established in forest management agreements developed and monitored by the Office of Environment and Heritage.

2(a)(v) Fire management on Crown lands

The Crown land estate is highly fragmented and has a high proportion of land interfacing urban areas. The Crown Lands Division of DPI is responsible for organising mechanical hazard and fire trail works on Crown land. However, unlike NPWS and Forests NSW, Crown Lands Division is not a fire fighting authority and cannot undertake activities such as controlled burns. Where there is a need to undertake controlled burns on Crown land managed by the Division, this is undertaken by the Rural Fire Service or other appropriate fire fighting authority. Crown Lands Division maintains approximately 1,000km of fire trails.

2(b) Weeds and pest animals

Pests and weeds are among the biggest threats to the survival of Australia's native plants and animals and are widely distributed on both public and private land across Australia. The impact of pests and weeds on primary production is in the hundreds of millions of dollars.

Pests cause financial losses to agriculture and other industries and damage areas of cultural significance. Managing the impacts of pests is an issue of great importance for managers of all land tenures.

Wild dogs, feral pigs, rabbits, foxes, feral goats, feral cats and carp are the key pest species occurring in NSW. Some other pest animals such as feral horses, wild deer, rats and cane toads are more localized problems. Pest birds such as common mynahs, exotic turtles (for example, red-eared sliders) and invertebrate pests (such as red fire ants) are emerging or potential threats. It is estimated that pest animals cost the Australian economy over $1 billion annually.

Over 1,350 exotic plant species (weeds) have naturalized in NSW with more than 100 of them having significant impacts on the environment. In many cases, weeds out-compete native species to form monocultures which displace indigenous species. Many naturalised plants are the result of deliberate introductions for ornamental or agricultural purposes. Some of the most invasive species are bitou bush, lantana, blackberry, privet, perennial grasses and exotic vines such as the Madeira vine.

The spread of pests and weeds on public lands can have a multitude of influences, and causes are highly variable. Physical factors such as the size of the land parcel, its proximity to neighbours and the amount of access to the land can influence the spread of pests and weeds. Environmental factors such as drought and wild fire place impacted landscapes under stress and generally provide circumstances for the spread of weeds and pests.

The legislative framework for pest management cuts across a series of statutes, including the *Rural Lands Protection Act 1998*, *Noxious Weeds Act 1993*, *Pesticides Act 1999*, *Game and Feral Animal Control Act 2002* and the *Threatened Species Conservation Act 1995*. Both private and public land holders must comply.

Under the *Rural Lands Protection Act 1998*, all NSW land occupiers are legally obliged to control pest animals on their land. Pest control orders may require occupiers of public and private land to eradicate, by any lawful method, declared pest animals on their land.

The *Noxious Weeds Act 1993* provides for the identification, classification and control of noxious weeds in NSW. All landholders have a legal duty to control declared noxious weeds.

The list of declared noxious weeds varies between local government areas. Certain classes of noxious weeds are 'notifiable', meaning landholders must inform the local control authority within three days of becoming aware that there is a notifiable weed on their property. Where a plant is declared noxious, it is assigned a 'control order' which specifies the actions required for that plant. The Act give the Local Control Authority power to require occupiers of land to control noxious weeds. If an occupier fails to do so, the council has the power to enter the land and carry out the control work. The council can also issue a penalty notice or take prosecution action for offences under the Act.

The *NSW Invasive Species Plan 2008–2015* is the overarching policy framework for the coordinated management of pest animals and weeds across all land tenures in NSW. DPI has lead responsibility for its implementation.

Regional pest and weed strategies are produced at different scales by each of the Catchment Management Authorities (CMAs) and by local government Regional Weeds Authorities. These plans are developed to complement the NSW Invasive Species Plan.

The NSW Weeds Action Program (WAP) was commenced in 2011 to allow weeds to be managed using regional partnerships best equipped to deal with local issues. The program allowed for grant applications for projects of up to five years that aligned with the *NSW Invasive Species Plan*. Over $8 million was provided to 13 regional groups last year to deliver key outcomes from the plan. Performance management is in place to ensure these regional projects are monitored during the life of the projects. Regional partnership groups included a broad range of stakeholders, including local councils, CMAs, LHPAs, Crown Lands Division, NPWS, community groups, Aboriginal land owners and industry.

At the regional level, specific pest animal issues are often targeted. Examples of this include the Illawarra Deer Strategy and regional wild dog strategies.

The Government is continuing to improve the way it engages the community in pest management programs. NPWS regional pest forums (see below) are an example of this, providing an open forum for sharing of views, issues, approaches and priorities.

The Government is currently undertaking two reviews relating to Livestock Health and Pest Authorities and weed management. The findings of these will assist in driving greater regional coordination and implementation of pest and weed control programs, working in collaboration with private land managers and the community.

Catchment Action Plans (CAPs) are implemented by 13 Catchment Management Authorities (CMAs) and their key partners to achieve on-ground natural resource management and conservation outcomes.

CMAs were established under the *Catchment Management Authorities Act 2003*, and although they do not generally directly manage public land, they indirectly influence management objectives, on both private and public land, through the setting of CAPs and through incentive funding predominantly to private land holders.

Progress in achieving CAP targets is monitored through CAP implementation audits undertaken by the NRC and the NSW Monitoring, Evaluation and Reporting Strategy. The State of the Catchments Reports also provide a comprehensive assessment of the condition of and the pressures on socio-ecological assets across biodiversity, water, land and community targets for all 13 regions in NSW.

CAPs are currently being upgraded by CMAs, as whole of government and community plans. They identify key threats and mitigation opportunities across tenures using the best available scientific information.

Multiple agency public land mangers often combine resources to address weed and pest animal issues. Recently staff from five local councils, NPWS, Wetland Care Australia and CMA participated in a joint alligator weed survey on the Richmond River. By combining resources more than 100 km of river was able to be surveyed in two days.

One example of a collaborative regional approach to weed control is being demonstrated on the North Coast, where weed-control authorities have inspected more than 110,000 hectares of land in the first eight months of the Weeds Action Plan (WAP).

The WAP targets high-risk weed pathways and high-priority weeds. The NSW Government launched the WAP state-wide at the end of last year to provide a more strategic and coordinated approach to weed management as part of the NSW Invasive Species Plan.

On the North Coast, weed-control authorities discovered dozens of new noxious-weed infestations and began control measures to stop their spread. The region is one of the fastest growing areas in the state and it also boasts some of the highest biodiversity values in the state. Fertile soils and high rainfall combined with a subtropical climate provide an extended growing period for weeds, making this region very vulnerable to the invasion of new plant species and further proliferation of existing weeds.

Inspectors from the North Coast Weeds Advisory Committee's (NCWAC) five local control authorities checked 7724 kilometres of high-risk pathways, including rivers, roads and creeks, for known high-priority weeds. Authorities inspected 4414 high-risk sites, totalling 21,964 hectares, for established and emerging high-priority weeds and they inspected 88,329 hectares of priority wetlands. The inspections included 13,615 private properties across the NCWAC region, which stretches from the Queensland border to Nambucca.

The NCWAC coordinates weed management activities by its regional affiliates, Far North Coast Weeds (FNCW), the Clarence Valley Council, Coffs Harbour City Council, Bellingen Shire Council and Nambucca Shire Council. Its area of responsibility is 23,500 square kilometres. Non Local Government partners in NCWAC include CMA, NPWS, Forests NSW, Northern Rivers Landcare, NSW Farmers, LHPA, Biosecurity Queensland, Gold Coast City Council, Essential Energy and John Holland Rail.

As part of the WAP, the committee is encouraging the early detection of weeds by producing and distributing information pamphlets about plant menaces such as tropical soda apple, cecropia, kidney leaf mud plantain and miconia.

2(b)(i) Pest and weed management in the national park system

NPWS is responsible for the management of pests and weeds in the national parks system and is a committed partner to the implementation of the NSW Invasive Species Plan across the landscape.

NPWS pest management programs are planned and prioritised based on the best available scientific evidence. Pest management is undertaken using a mix of approaches including trapping, baiting, mustering, biological control, exclusion fencing and aerial and ground shooting. The right mix of techniques depends on the pest species, the local circumstances and the views and capabilities of stakeholders and partners.

The NSW Government recently extended its program of feral animal control in national parks to allow licensed hunters to cull pests including pigs, dogs, cats and goats. This will occur under strict conditions in 79 of the State's 799 national parks, nature reserves and state conservation areas. The shooting of feral animals will not be permitted in or near metropolitan areas, or any wilderness or world heritage area, including Blue Mountains National Park, and will require written permission. People who seek to participate will need to be licensed by the Game Council and comply with access conditions established by the Minister for the Environment.

Every five years, NPWS prepares Regional Pest Management Strategies to set priority actions for each of the 14 NPWS administrative regions.

NPWS Regional Pest Management Strategies ensure that NPWS' efforts and investment are prioritised towards the most important tasks, including programs targeting pests that impact significantly on economic enterprises, and programs targeting pests that are significantly impacting on threatened species populations/communities (such as fox and bitou bush threat abatement programs).

The most recent Regional Pest Management Strategies underwent extensive consultation across NSW to ensure that effort is coordinated, targeting regional priorities and meeting the expectations of local stakeholders. Around 380 stakeholder representatives attended the recent pest forums across NSW.

Success in pest management is measured by the recovery of threatened native species and a reduction in the loss and damage to stock and crops. The numbers of pest animals destroyed or removed, and the number of baits laid in the national parks system in 2010-2011, are outlined below.

Pest animals destroyed or removed, and baits laid, in the national parks system, 2010-11

	Destroyed	Removed or trapped	Baits laid
Dogs	594	456	32,174
Goats	8,636	17,782	
Foxes	2,016	430	25,559
Pigs	9,888	392	76 (125 kg)
Cats	61	42	108
Rabbits	2,530		1,535 kg
Cane toads	16,428		
Deer	253	142	

Examples of success against pests and weeds include:

- Since cooperative wild dog programs were initiated in the Brindabella and Wee Jasper Valleys in the Southern Tablelands, stock losses have declined from 200 animals in 2001 to only 4 animals in 2009.
- Endangered species such as mountain pygmy possum populations are increasing and expanding their distribution as a result of cooperative and strategic fox and feral cat control programs.
- Endangered vegetation communities in the far west are starting to recover now that they are protected from feral goats.
- Under the NSW Fox Threat Abatement Plan, fledgling success of threatened shorebirds has been significantly greater at sites subject to intensive fox control. Monitoring has also provided evidence of an overall recovery of little terns in NSW.
- Under the National Plan for Lantana, lantana cover has decreased in the Maroota Ridge State Conservation Area from greater than 50% to less than 5%, and the average number of native species increased by 38% over a two year period.

2(b)(ii) Pest and weed management in state forests

Forests NSW conducts weed control on its estate in consultation with neighbours where possible and under legislation and protocols that prescribe the appropriate methods for particular weeds or weed issues. Forests NSW undertakes pest animal control in concert with other agencies, such as LHPAs and NWPS in an integrated manner.

Forests NSW continues to be a major contributor to a range of control programs including those targeting foxes, wild dogs, feral goats, feral pigs, blackberries, willow, serrated tussock, horehound, lantana and Paterson's curse.

The following data are reported against Indicator 14, Pest Animal and Weed Control, in the 2010-2011 Forests NSW annual report.

Pest animal and weed control in State forests

Treatment categories	1997–98	2008–09	2009–10	2010–11
Weeds	$1,325,000	$898,940	$1,125,258	$1,018,984
Pest animals	$328,000	$584,800	$591,459	$392,340
Total	**$1,653,000**	**$1,483,740**	**$1,716,718**	**$1,411,324**

	Weed and pest control associated with plantation establishment		General pest and weed control	
Treatment categories	**Area (ha)**	**Expenditure**	**Area (ha)**	**Expenditure**
Blackberry treatment	7,853	$1,160,522	33,580	$532,368
Other weed treatment	7,691	$1,305,604	39,439	$486 616
Rabbit control	7,726	$80,825	0	$0
Wild dog control	0	$0	122,351	$0
Other pest animal control	0	$0	645,875	$392,340
Totals	**23 270**	**$2 546 951**	**841 245**	**$1 411 324**

Species removed by licensed hunters	2007–08	2008–09	2009–10	2010–11
Feral cats	136	172	219	167
Feral goats	1 037	1 899	2 130	2 646
Feral pigs	1 081	1 478	1 924	2 278
Foxes	724	1 072	1 256	1 320
Hares	242	489	630	520
Rabbits	4 076	5 453	8 335	6 606
Wild deer	410	562	654	499
Wild dogs	55	72	84	69

Game Council NSW is the statutory body responsible for implementing the objectives of the *Game and Feral Animal Control Act 2002*. Game Council NSW provides a licensing system that enables game hunting licence holders to remove game and feral animals from declared State forests. Removing game and feral animals from State forests areas helps to contain

existing game animal populations and exert downward pressure on feral animal populations in these locations.

2(b)(iii) Pest and weed management on Crown lands

As part of the sustainable management of Crown land, funds are provided to reserve trusts, Landcare groups, LHPAs, county councils and local councils for weed and pest control programs on Crown land.

Crown Lands Division has made arrangements within DPI and with the Noxious Weeds Advisory Committee (NWAC) to provide funds for integrated weed control programs on Crown land and other land under the control of the Department. This can include Crown land which is reserved, under short term tenure or the control of community or corporate Trusts.

In 2011/12 the Crown Lands Division funded 166 projects for weed management and 37 projects for pest control on Crown land, totalling $585,000 and $190,000 respectively. The weed management projects cover a range of noxious and environmental weeds, whilst the majority of pest animal projects targeted foxes and wild dogs. Successful applicants for funding are required to submit project reports to be eligible for future funding programs.

It is not possible to quantify weed and pest animals control activities on Crown land at present, as a large percentage of Crown land is managed on behalf of the Division by other bodies such as trust managers. Crown Lands Division recently developed a *Natural Resource Monitoring, Evaluation and Reporting Strategy*. This Strategy provides the framework to implement a range of reporting and data collection projects which will, in time, provide detailed spatial reporting and measurement of all land management activities undertaken on Crown Land.

The key tool for delivery of the NRMER Strategy will be implementation of a GIS-based database tool built on the Government's Land Management Database (LMDB). This will not only provide regular reporting, but also help to prioritise activities and resources across the Crown estate.

Crown Lands Division is involved in the development of regional weed management plans, the federal Weeds of National Significance initiative, the Bitou Bush Threat Abatement plan and Recovery Plans for Threatened Native Species (in conjunction with the Office of Environment and Heritage). The bitou bush spraying programs in the Taree and Tweed Regions have resulted in approximately 50% reduction of Bitou in the past three years.

Crown Lands Division also has responsibilities to eradicate pest animals on land under its control. DPI is the lead agency and Livestock Health and Pest Authorities (LHPAs) are responsible for the planning and coordination of on-ground actions.

The Crown Lands Division's pest animal control programs include support for the Fox Threat Abatement Plan prepared by the Office of Environment and Heritage and Outfox the Fox, an initiative of NSW Department Primary Industries and the LHPAs. The Division also supports Regional Wild Dog Management Plans, Recovery Plans for threatened native species and a research project into the effect of aerial baiting of dogs and foxes on native quoll populations.

2(c) Environmental conservation management

In managing, using and developing land, all private and public landholders in NSW must comply with both the *Environmental Planning and Assessment Act 1979* (EP&A Act) and a range of separate individual issue-specific Acts. This legislation includes both 'minimum' land management obligations that must be met (generally things which cannot be done) as well as requirements for approvals by way of consents or permits for other matters. The EP&A Act through its subordinate legislation (State Environmental Planning Policies and Local Environmental Plans) addresses both land management and development in general, and certain specific environmental conservation issues (e.g. via SEPPs dealing with wetland and littoral rainforest areas, and LEP provisions dealing with tree preservation or considerations for development within riparian areas). Separate issue-specific Acts include the *Heritage Act 1977*, *National Parks and Wildlife Act 1974* (for Aboriginal heritage), *Threatened Species Conservation Act 1995*, *Fisheries Management Act 1994*, *Native Vegetation Act 2003*, *Water Management Act 2000*, and *Protection of the Environment Operations Act 1997*.

This legislation contains similar obligations on both private and public landholders with respect to environmental conservation aims and objectives. There is considerable interplay between the Acts, including the integration of some approvals and, at times, the turning off of the need for approvals under one Act if an approval and/or similar consideration has been made under another Act.

The particular 'paths' whereby actions which need an approval are processed (applied for, considered and determined) can differ according to whether the landholder and/or proponent is private or public. For public entities, some variation in approval paths can be triggered to avoid potential conflicts of interest where that public entity is both proponent and approval authority and the matter is likely to have a significant environmental impact.

Threatened species legislation (in both the *Threatened Species Conservation Act 1995* and the *Fisheries Management Act 1994*) contains provisions that are specific to public authorities and additional to private landholder obligations. Public authorities are to ensure their activities are consistent with threatened species Recovery Plans and Threat Abatement Plans, must involve the respective Director-General where actions are likely to be inconsistent, and can be identified in such plans as required to implement nominated actions.

2(c)(i) Environmental management in national parks

NPWS undertakes a wide range of land management activities and works across the national parks system every year. These activities must be planned, assessed and implemented to ensure impacts on the environment are either avoided or mitigated.

Processes for preparing plans of management, pest management strategies and fire management plans for national parks are discussed above. In addition, NPWS has developed a comprehensive and rigorous system for the environmental assessment of all activities within the national parks system, ensuring compliance with the suite of legislative requirements. This includes:

- **Conservation Risk Assessments:** undertaken for activities that are 'exempt development' under the EP&A Act.

- **Reviews of Environmental Factors:** for activities under Part 5 of the EP&A Act.
- **Sustainability Assessments:** for tourism and visitor use projects requiring a lease or licence under s.151 of the NPW Act.
- **Construction Assessment Procedures:** which establish a process for ensuring building and infrastructure work is certified to meet relevant Building Code of Australia and Australian Standards.

In addition, NPWS has prepared guidelines for planning authorities to assist them when considering development proposals adjoining national parks.

2(c)(ii) Environmental management in State forests

Environmental management practices implemented by Forests NSW are outlined in the Ecologically Sustainable Forest Management Plans for each region, and dealt with more specifically in each region's supplementary plans. In addition, all of Forests NSW operations have achieved and continue to maintain certification to the international standard for Sustainable Forest Management (Programme for the Endorsement of Forest Certification as the Australian Forestry Standard). All environmental management on State forests is subject to an Environmental Management System (AS 14001).

2(c)(iii) Environmental management on Crown land

Crown land is managed in accordance with the principles of Crown land management contained within the *Crown Lands Act 1989*. These are broadly, environmental protection, natural resource conservation, sustainable land and resource management, public use and enjoyment and multiple use, and the best interests of the State consistent with the other principles.

Conservation of natural resources and their values is an inherent part of these principles. Importantly, the principles also provide for the multiple use and thus, where appropriate, development of individual Crown land parcels. In this way the principles of Crown land management align with the concept of the 'triple bottom line' (ecological, social and economic objectives achieved together) in sustainable development.

The Crown Lands Act provides for the preparation of plans of management by reserve trusts established to manage reserves and by the Minister responsible for the Act. Plans of management can be used as a mechanism to ensure appropriate land use and management of reserved Crown land. Guidelines for the preparation of plans of management are set out in the *Reserve Trust Handbook* available on the DPI website. Reserve trusts are a key stakeholder in the delivery of natural resource management outcomes on Crown land at a local level.

In addition, the granting of leases and licences facilitates the valid use of Crown land and may be conditioned to provide for environmental management on these lands. This could include works to manage noxious weeds, feral pests, bushfire hazards, soil erosion, contaminated land and coastal management and rehabilitation. Crown Lands Division has worked closely with other government agencies, and tenure holders to seek improved tenure conditions and environmental outcomes on Crown lands where they exhibit conservation values such as key fish habitat, endangered ecological communities or threatened species. For example, the grant of licences to extract material from Crown land such as sand, gravel

and rock (exclusive of minerals) contains provisions for environmental management and rehabilitation.

There are many parcels of untenanted and unallocated Crown land that are managed directly by the Crown Lands Division. This management may include rubbish removal, fencing, vegetation management, removal of contaminated waste and soil erosion mitigation works.

Crown Lands Division has actively pursued the remediation of contaminated sites such as rubbish depots, dip sites, mine and processing sites that present a risk of harm to human health and the environment.

Management of Western Lands leases by the Crown Lands Division contributes to sustainable grazing and environmental outcomes for the Western Division through compliance with lease conditions and implementation of the Western Division Rangelands Condition Assessment Program. This program, which was vetted and approved by the Western Lands Advisory Council, ensures that environmental and production outcomes are balanced through appropriate levels and methods of stocking. Every property inspection provides an opportunity for the Crown Lands Division to assess range condition, establish photopoints and implement measures that ensure total grazing pressure is compatible with environmental considerations. Furthermore, enforcement of improved boundary fencing standards has enhanced management of stock on properties and has increased lessees' ability to undertake strategic goat harvesting. Weed and pest control, including the strong emphasis on control of wild dogs, also aids in rangeland management.

In regard to specific measures for increasing management of Western Lands leases for alternative land uses, Crown Lands Division regularly undertakes alterations of lease purpose and conditions to enable lessees to diversify land use, including uses such as farm tourism, alternative energy generation (wind and solar power), and potential carbon sequestration projects. This process enables lessees to set aside whole or part of a lease for conservation purposes, including research purposes by universities, southern mallee conservation offset areas, offsets for mining development and offsets for clearing areas established under Property Vegetation Plans (PVPs) by the CMAs. Conservation areas established on Western Lands leases may also be eligible for a rent rebate. Crown Lands Division has also consented to the establishment of Voluntary Conservation Agreements (VCAs) under the *National Parks and Wildlife Act 1974* on Western Lands leases.

Crown Lands Division also works in partnership with the CMAs via specific on-ground projects on Crown land. The co-location of Crown Lands Division and CMAs in the new NSW Trade and Investment structure presents opportunities for enhanced cooperation, including the sharing of natural resource information, particularly state-wide geographical information system layers, cooperation in developing, reviewing and implementing Catchment Action Plans as well as further on-ground projects. The great majority of resources within estuaries and the coastal zone are on Crown land. DPI is a key agency in the development of Coastal Zone Management Plans for these lands and in the delivery of actions in those plans to address issues such as coastal erosion and habitat restoration and conservation.

3. Models for public land management

Terms of reference

3. Examination of models for the management of public land, including models that provide for conservation outcomes which utilise the principles of 'sustainable use'.

Public lands across NSW are managed to deliver a broad range of objectives and outcomes for the overall optimum benefit of the community. Decisions on the most appropriate and beneficial uses of public lands and how they should be managed into the future are made after weighing up and balancing a diverse range of variables and, at times, competing objectives.

There have been attempts in the past to compare the management costs for public lands across Australian jurisdictions on a dollar per hectare assessment. At the most basic level, it has been assumed that this could be achieved by simply dividing the total budget of every Australian park or public land management agency by the amount of land they manage and then comparing across States and Territories.

However, there are some critical differences between different park and public land management agencies across Australia that make it difficult to achieve a simple comparison. For example, not all public land management agencies are responsible for fire hazard reduction. Some public land managers are also responsible for significant assets, including substantial heritage items that require ongoing restoration and maintenance effort. Similarly, not all jurisdictions publicly account for and report the full cost of managing all infrastructure and park assets.

In addition, some public lands experience significantly greater demands for services and public access.

3(a) Management of the national parks system

All Australian jurisdictions have a publicly owned and managed national park system as the cornerstone of biodiversity conservation efforts. Internationally the context is the same: the Unites Stated, Canada, New Zealand, South Africa, and a raft of developing nations all have extensive networks of public conservation lands with management predominantly by a government entity.

The national parks system provides protection to biodiversity and cultural heritage values, together with extensive nature-based recreation and ecosystem services.

3(a)(i) Conservation and sustainable use across landscapes

Over the last two decades there has been growing emphasis on voluntary, cooperative and integrated management of all lands, involving both public and private land managers working towards common agreed objectives.

NSW 2021 provides clear support for such approaches, emphasising the commitment to work with Catchment Management Authorities and local communities to protect and improve habitat on private lands.

3(a)(ii) Working with landholders at a property scale

The OEH administers a range of continuing initiatives through the Community Conservation Partners Program aimed at encouraging voluntary participation by private landholders in conservation efforts. The Program supports landholders in voluntarily protecting and managing native vegetation, wildlife habitat, geological features, historic heritage and Aboriginal cultural heritage on their properties.

Examples include:

- **Wildlife Refuges** – one of the longest-running programs in Australia that supports conservation on private and public land. There are currently 667 Wildlife Refuges protecting 1.9 million hectares of wildlife habitat.
- **Conservation Agreements** – these are established under s.69B of the NPW Act and run with the title of the land. Across NSW there are 336 Conservation Agreements covering 138,000 hectares of high conservation value private and public lands.

The OEH also runs the Biodiversity Banking and Offsets Scheme ('BioBanking'), a market-based scheme that streamlines assessments for development proposals and creates opportunities for rural landowners to generate income by managing land for conservation. There are currently ten BioBanking agreements in place covering 487 hectares. A statutory review of the BioBanking Scheme is currently underway.

3(a)(iii) Working with landholders across the landscape

The OEH also works with a range of landholders and organisations at a scale above individual properties to ensure national parks are managed as part of the broader productive landscape. This recognises that conservation connectivity and biodiversity objectives can only be achieved with the involvement of both private and public holders working to a common and agreed framework.

A long-standing example is the inter-government partnership between NSW, Victoria, the ACT and the Commonwealth to pursue best practice management of the unique alpine parks. More recently, the Great Eastern Ranges (GER) program is working to support a continental-scale conservation initiative from the Australian Alps north of Melbourne to the Atherton Tablelands just west of Cairns.

3(b) Management of other public lands

A variety of tools are used to formally implement and evaluate frameworks to achieve conservation and other outcomes through the management of public land. These include:

- ecologically sustainable forests management plans used by Forests NSW
- plans of management established for Crown reserves
- Catchment Action Plans (CAPs) which establish regional conservation priorities across all land tenures.

The creation of the NSW Trade and Investment cluster has facilitated improved working relationships between public land managers, and private and public land managers. All NSW Trade and Investment public land managers operate in a manner designed to meet economic, social and environmental objectives and achieve sustainable use*.*

The achievement of conservation outcomes through these models is evidenced by:

- Audits undertaken by the Natural Resources Commission on behalf of the Minister for Primary Industries to determine the effectiveness of CAP implementation by Catchment Management Authorities to achieve compliance with the Standard for Quality Natural Resource Management and promote the state-wide natural resource management targets.
- Continued certification to the Australian Forestry Standard (AFS), reporting of Ecologically Sustainable Forest Management Plan outcomes to the Commonwealth through Regional Forest Agreement annual reporting, annual tabling of Forests Agreement reports to the NSW Parliament, and triple bottom line reporting in Forests NSW Annual Report.
- The DPI has a strong and focussed forestry research unit producing peer reviewed papers on ecology, plant health and carbon sequestration (inter alia) that can be directly applied to forest management. In addition Forests NSW has its own active Water Quality monitoring group that deals with on the ground issues, produces peer-reviewed research papers and presents the results of its work at international conferences.

3(b)(i) Case study: Sydney Catchment Authority

The Sydney Catchment Authority's (SCA) governing legislation requires the SCA to establish plans of management for the Special Areas, which are the protected catchments surrounding the water storages and critical components in the supply of quality raw water.

The Special Areas Strategic Plan of Management (SASPoM) and the Wingecarribee Swamp and Special Area Plan of Management (WSSAPoM) outline the joint aims for the management of the Special Areas by the SCA and NPWS, such as action on fire and trail management, soil erosion control and pest and weed management. The SASPoM and WSSAPoM are publicly available on the SCA's website.

Lands subject to the SASPoM and WSSAPoM are jointly managed by the SCA and NPWS. The SCA manages the lands under the *Sydney Water Catchment Management Act 1998* and NPWS manages the lands in accordance with plans of management prepared under the *National Parks and Wildlife Act 1974*. Both agencies are committed to their legislative obligations in relation to land management. The annual joint land management program has

been in place for approximately ten years and has played an important role in protecting water quality and the ecological integrity of the Special Areas.

The SCA's Healthy Catchments Strategy includes information about how the SCA undertakes its land management obligations including the joint plans of management for the Special Areas. The Healthy Catchments Strategy and annual Healthy Catchments Program are publicly available on the SCA's website.

The SCA publicly reports on the implementation of its land management program including SASPoM and WSSAPoM in an Annual Catchment Management Report. The Report provides a summary of SCA activities to address: fire and fire trails; pests and weeds; soil erosion; cultural heritage; recreation; and ecosystem management. The reports are available on the SCA's website.

The SCA's obligation in relation to the management of the Special Areas and its catchment activities are included in the operating licence regulated by the Independent Pricing and Regulatory Tribunal (IPART). The SASPoM and WSSAPoM and the Annual Catchment Management Report are audited as part of the annual operating licence audit. The audit is published and available on IPART's website.

Appendix A Background

Part 1 of this appendix provides background information on the key types of public land in NSW and how they are managed.

The main types of public land in NSW are Crown land and State forests, which are managed by DPI, and the national parks estate, which is managed by NPWS within the Office of Environment and Heritage. The Department of Planning and Infrastructure manages public land in the greater Sydney metropolitan area.

Other authorities which manage public land and are briefly discussed in this appendix include:

- Livestock Health and Pest Authorities
- Sydney Catchment Authority
- State Water Corporation
- Water Administration Ministerial Corporation
- Lake Illawarra Authority.

Also provided (in Part 2) is an overview of the Rural Fire Service and its functions.

1. Main types of public land in NSW

(a) National parks

The NSW national parks system includes 863 parks and reserves, covering around seven million hectares (8.75% of NSW) (see below).

Management of the NSW national parks system

The NSW national parks system is managed by NPWS. NPWS is part of the Office of Environment and Heritage, within the Department of Premier and Cabinet. The creation of NPWS in 1967 achieved coordinated management of a mix of parks and reserves that had developed over the previous 90 years.

Management of the national park system is primarily undertaken in accordance with the powers and responsibilities set out in the *National Parks and Wildlife Act 1974*. In managing the park estate NPWS is also subject to obligations conferred by a range of other statutes including the *Threatened Species Conservation Act 1995*, *Heritage Act 1977*, *Wilderness Act 1987*, *Environmental Planning and Assessment Act 1979*, *Rural Fires Act 1997* and *Noxious Weeds Act 1993*.

Land management funding

The costs of on-going park management are dominated by fire management, pest management and providing services and facilities for visitors. In 2011-12, budgeted recurrent expenses to cover the costs of national park management were $277 million. Of this, over 25% is funded by park use fees, lease and licence fees and Commonwealth and other grants.

Revenue

NPWS focuses its business efforts on supporting opportunities for sustainable visitor use, including tourism and recreational uses that benefit local communities and domestic and international tourists.

Revenue sources for the NSW national parks system include: park entry fees and annual passes; camping fees; leases and licences; and easements. In 2010-11 total revenue was approximately $51 million. Funds are invested back into park and conservation management and continual improvement of visitor facilities.

Parks into the future

Public ownership and management of national parks is internationally recognised as the tenure most likely to deliver conservation objectives. Public reserves are established in perpetuity, professionally managed, strategically located for optimal effect, and their management is transparent and publicly accountable. There are also significant economies of scale achieved through coordinated management of the national parks system through a single entity.

While national parks provide the secure 'backbone' for conservation, it remains important that formal reserves are complemented by other mechanisms such as voluntary private landowner conservation and sustainable management of productive landscapes.

Through NSW 2021, the NSW Government has set out its commitment to build on the legacy of work already undertaken to continue the identification and acquisition of high conservation value land for permanent conservation measures. That includes continuation of the reserve establishment program and working with landowners to increase the amount of land under private conservation arrangements and sustainable management.

The policy and science of national parks

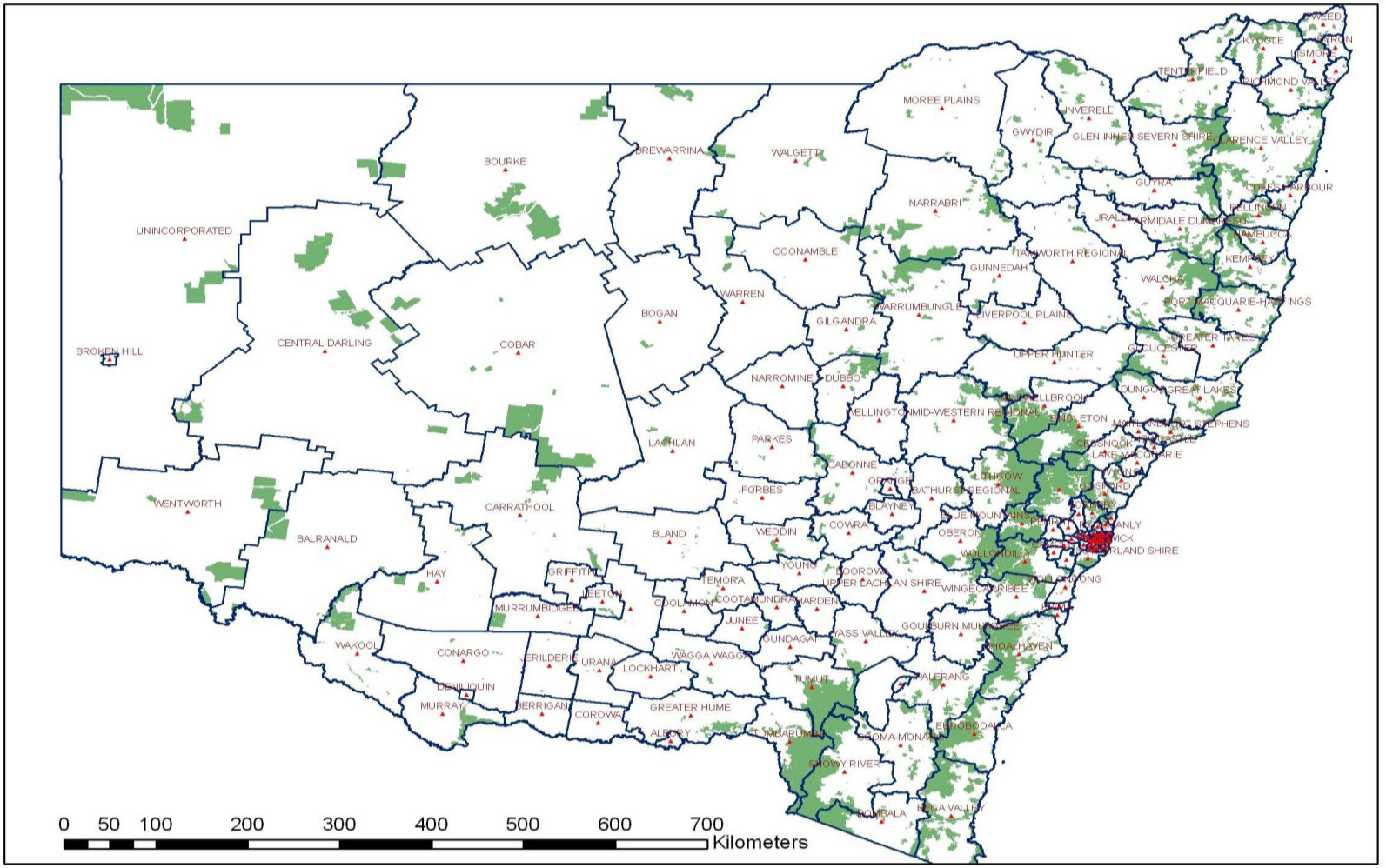
The NSW national parks system fits within an international and national legal and policy framework which includes: the Convention on Biological Diversity; the World Heritage Convention; the Australian Intergovernmental Agreement on the Environment; the National Forest Policy Statement; and Australia's Biodiversity Conservation Strategy.

NSW national parks are a part of the National Reserve System (NRS), which is supported by all Australian states and territories. The NRS is guided by CAR principles, which provide a well-established foundation for conservation planning used throughout Australia and the world for over 20 years.

The development of the NSW reserve system uses bioregions as the basic planning unit. Bioregions (an abbreviation of 'biogeographic regions') are large regions of relatively similar geology, geography and geomorphology. Each bioregion supports a suite of native plants and animals distinctive from those in adjoining regions.

In NSW, the proportion of lands protected in national parks is significantly greater in those bioregions to the east and along the NSW coast. In contrast, in western NSW reservation levels are either low or very low.

Lands within the NSW national parks system



Source: NPWS GIS databases (as at May 2012)

Reserve types in the national park system

The national parks estate consists of seven categories of terrestrial reserves: national parks; nature reserves; historic sites; state conservation areas; karst conservation reserves; Aboriginal areas; and regional parks. Each category reflects a different conservation purpose and is managed in accordance with a set of management principles outlined in the *National Parks and Wildlife Act 1974 (NPW Act).* Collectively, these lands are commonly referred to as the national parks system.

Reserve type, number and area, as at 30 March 2012

Reserve type	Number	Area (ha)
Aboriginal Area	19	14,198
CCA* Zone 1 National Park	34	132,760
CCA* Zone 2 Aboriginal Area	5	21,661
CCA* Zone 3 State Conservation Area	23	196,533
Historic Site	16	3,023
Karst Conservation Reserve	4	5,172
National Park	200	5,195,769
Nature Reserve	418	943,696
Regional Park	20	22,825
State Conservation Area	124	547,972
Total	**863**	**7,083,609**

*Community Conservation Areas established under the *Brigalow and Nandewar Community Conservation Area Act 2005*

(b) Forests NSW

Forests NSW is a public trading enterprise (PTE) within DPI, which is within NSW Trade and Investment. Forests NSW sustainably manages more than 2 million hectares of native and planted forests for a wide range of economic, environmental and social values to internationally recognised standards.

Forests NSW manages its estate under the principles of Ecologically Sustainable Forests Management (ESFM). Each region, including planted forests regions, has a specifically tailored ESFM plan.

Forests NSW is a Public Trading Enterprise and, as such, manages NSW public forests (both plantations and native forests) for the environmental, economic and social benefit of the people of NSW. In the financial year 2011/12 Forests NSW contributed a dividend of $14M to Treasury.

The Minister for Primary Industries has announced that Forests NSW will move from being a PTE to a State Owned Corporation. While this will include a number of necessary administrative changes and a greater focus on the commercial activities of Forests NSW, the public lands that Forest NSW manages will remain in public hands and management practices will continue to comply with the suite of environmental legislation that currently applies.

(c) Crown Lands Division

'Crown land' refers to land managed under the Crown Lands Act 1989, Crown Lands (Continued Tenures) Act 1989, Commons Management Act 1989, Western Lands Act 1901, Crown roads under the Roads Act 1993 and Schools of Arts on public land under the Trustees of Schools of Arts Enabling Act 1902. These lands are administered by the Crown Lands Division of DPI.

There are currently just under 60,000 leases, licenses and other tenures over Crown land administered by the Crown Lands Division, in both urban and rural areas, covering approximately 34 million hectares. This includes: over 2,500 perpetual and other leases and just over 4,000 permissive occupancies under the *Crown Lands (Continued Tenures) Act 1989*; 30,000 enclosure permits, some 14,000 licenses, and 400 leases under the *Crown Lands Act 1989;* and over 8,000 leases under the *Western Lands Act 1901*.

Under these tenures Crown land is used for commercial purposes (e.g. marinas, restaurants, kiosks etc), grazing and agriculture, residential, sporting and community purposes, tourism and industry, and for waterfront occupations.

The tenure holder is responsible for the day-to-day management of the land in accordance with the conditions of their tenure and in many cases has the right to exclusive occupation and use of the land. Many tenures, particularly in the Western Division of the State, are held in perpetuity.

Currently the Crown land estate also includes some 35,000 Crown reserves with an approximate area of 2.7 million hectares. Crown reserves are parcels of Crown land set aside for a multitude of purposes, including public recreation, showgrounds, cemeteries, environmental protection, public halls, racecourses and recreational facilities.

Reserve trusts established under the *Crown Lands Act 1989* have responsibility for the care, control and management of Crown reserves and are guided by legislative and policy requirements and the 'Reserve Trust Handbook' which contains general information and guidelines as well as regulatory requirements on how to manage reserves. A trust can only make decisions and take actions concerning the reserve in the interests of the reserve itself, and the public.

While a reserve trust is a legal entity in its own right, it cannot operate without having someone appointed to manage its affairs – a reserve trust manager. A reserve trust can be managed by:

the Minister administering the *Crown Lands Act 1989* (through the Crown Lands Division);

- a trust board (comprised of individual community members or ex-officio representatives or relevant government and community organisations);
- an incorporated body, usually a local council, but it could also be an association incorporated under the *Associations Incorporation Act 1984* or a charity which is a limited liability company;
- an administrator.

Crown land under the *Crown Lands Act 1989* must be managed in accordance with the principles of Crown land management contained within the *Crown Lands Act 1989*. These are broadly, environmental protection, natural resource conservation, sustainable land and

resource management, public use and enjoyment and multiple use, and the best interests of the State consistent with the other principles.

As at June 2012, there were around 5,400 Crown reserve trusts managing Crown reserves. Some 800 reserves were managed by a community trust board, about 5,500 by a local council as a trust manager and a further 2,200 reserves were directly managed by local councils, 880 by another corporation, just under 30 by an administrator and approximately 225 by the Minister as trust manager.

Where there is no reserve trust manager appointed, the Minister is the 'default' reserve trust manager. In these cases the Crown Lands Division is responsible for the management of the reserve. This includes over 18,000 reserves.

There are hundreds of kilometres of walking and cycling tracks on Crown land providing local attractions for nearby communities, including five major walking tracks predominantly managed by Crown Lands Division. Crown Lands Division also manages five canoe and kayak trails.

The Crown Lands Division has a recurrent budget of around $60 million.

(d) Department of Planning and Infrastructure

The Department of Planning and Infrastructure (DP&I) manages public land in the greater Sydney metropolitan area, on behalf of the Minister administering the *Environmental Planning and Assessment Act 1979* (Corporation Sole) and the Sydney Region Development Fund (SRDF).

This public land is identified, acquired, managed (on an interim basis) and transferred by DP&I to other government agencies, including local government, to implement planning and public purposes throughout the Sydney region. This includes land suitable for regional open space, public transport corridors and urban development projects.

In managing its holdings, DP&I has typical responsibilities of land and property management including:

- built improvements and asset maintenance;
- fencing;
- dams and water courses;
- dumped materials removal and prevention;
- tree maintenance; and
- illegal access across, and uses of the land.

The SRDF property portfolio is in a state of ongoing change with new properties being acquired, properties being transferred to other NSW Government agencies as required, surplus properties being sold and properties being granted to local government authorities.

Maintenance of the extensive land holdings of the SRDF is a challenge because the transfer process can be protracted. SRDF has therefore been required to adopt a longer term strategic open space planning approach in dealing with the significant regional parklands areas. e.g: creation of the Western Sydney Parklands or contiguous management of the South Creek and Ropes Creek Corridors, which includes on-going land rehabilitation and vegetation planting and maintenance works.

Where feasible the land is licensed for private purposes and the maintenance obligations (fencing, grass control, weed and pest eradication) are transferred to the licensee. This process provides SRDF with a rental income stream that provides security and reduces the cost of land maintenance.

Almost half of the regional open space is managed by local councils, under the provisions of the *Local Government Act 1993,* and councils and OSL in partnership or individually inspect the land and identify any maintenance problems (typically fence repairs, dumped cars or rubbish, illegal access and bushfire hazard reduction). Maintenance is conducted either by DP&I's contracted service delivery agencies or by the local council as part of its management responsibilities.

In the case of road corridor land, cyclic maintenance arrangements are entered into with a suitable contractor, RMS or Councils where the grass on the land is slashed at regular intervals. Adjoining owners or local government authorities may also contact DP&I directly when specific maintenance issues or problems arise.

(e) Livestock Health and Pest Authorities

The fourteen Livestock Health and Pest Authorities (LHPAs) work collaboratively with rural producers, government and industry to safeguard agriculture in NSW. They provide the frontline animal health service in NSW. Their core areas of responsibility are animal health, pest animal and insect control and management of travelling stock reserves (TSRs). LHPAs work in close partnership with DPI and other government and industry agencies. Travelling stock reserves under the management of LHPAs cover around 550,000 hectares.

On the coast and tablelands TSRs are usually fenced paddocks and are stocked under grazing permits. In other areas there are traditional open stock routes along roads with fenced sections for overnight housing of stock. Usage is dependent on seasonal conditions. The majority of travelling stock routes within the Western Division are occupied by landholders through Western Lands leases which overlay the TSRs.

The NSW Government commissioned a review of the LHPA model by Mr Terry Ryan. The review examined the structure, effectiveness and efficiency of LHPAs, as well as their on-going role, and the rating system. The Ryan report recommends fundamental and far reaching changes to the delivery of rural landholder services in NSW, including the management of TSRs. The Government is currently formulating its response to the report, taking into consideration public submissions received.

The Ryan report referred to above commented that the full costs of maintaining TSRs are unknown as the LHPAs do not undertake full cost centre accounting.

(f) Sydney Catchment Authority

The Sydney Catchment Authority (SCA) owns and manages land in the drinking water catchments. This includes freehold land within the Special Areas adjacent to the water storages. The Special Areas cover approximately 370,000 hectares of mostly intact native bushland. Public access and activities are restricted under regulation to protect water quality in these areas. SCA also has land holdings in the Braidwood area that were acquired for Shoalhaven Scheme Stage 2 (Welcome Reef Dam). The lands owned by SCA are managed to protect water quality of the stored water, and to conserve ecological integrity.

In 1999-2000, a review of land vested in the Sydney Catchment Authority was undertaken under s.45 of the *Sydney Water Catchment Management Act 1998,* which required the Minister to review SCA lands to determine whether the objectives of the SCA could be more effectively attained if the lands were vested in the Minister administering the *National Parks and Wildlife Act 1974*. In June 2001, lands within the Warragamba, Katoomba, Blackheath, Woodford, O'Hares Creek and part of the Shoalhaven Special Areas were vested in the Minister administering the *National Parks and Wildlife Act 1974*. Following a Government commitment in 2002, lands in the Metropolitan Special Area were identified for transfer to NPWS. The identified lands have been progressively transferred with some land still to be transferred.

(g) State Water Corporation

The State Water Corporation (SWC) manages some 350,000 hectares including reserves (national parks), land inundated when dams are at full supply, leased land and land under permissive occupancy. There are around 240 properties on this land at some 17 locations including office and residential facilities; workshops, sheds and carports; recreational buildings and leased properties.

In March 2007, a considerable number of structures owned by the Water Administration Ministerial Corporation (WAMC), for example, dams, weirs and other infrastructure, were transferred to SWC. The land under or surrounding these assets, however, was not transferred. In August 2006 the administrative functions of the WAMC to manage primarily those lands upstream of major storages was delegated to SWC.

In many instances, the ongoing transaction of land matters is undertaken on a cooperative basis between the WAMC and SWC.

(h) Water Administration Ministerial Corporation (WAMC)

The WAMC was constituted under the *Water Management Act 2000*. From the early 1900s, the WAMC, and its predecessors (including the Water Resources Commission and the Water Conservation and Irrigation Commission and the Minister for Public Works) appropriated, resumed or otherwise a significant number of parcels of land on a statewide basis from both private persons, and land of the Crown to undertake its core functions.

These functions included:

- construction of major storage sites such as dams and lake systems, as well as more minor storage sites i.e. weirs and regulators:
- the establishment of Irrigation Areas and Districts, and Irrigation and Water Trusts;
- the establishment of Great Artesian Basin Bore Sites and associated infrastructure;
- flood mitigation/control works throughout the State, but more particularly within the Hunter Valley;
- establishment of infrastructure to operate effectively, e.g. offices, depots & housing;
- salt interception schemes;
- acquisitions on behalf of the Murray Darling Basin Authority; and
- acquisitions on behalf of the Dumaresq-Barwon Border Rivers Commission.

Much of this land has been utilised, but a number of land assets, and/or associated infrastructure, have been either:

- vested in the various Irrigation Areas and Districts when they were corporatised, and ultimately privatised;
- vested in the State Water Corporation (structures and improvements only);
- vested in the State Property Authority;
- designated as State Recreation Areas or similar, and administered under the *Crown Lands Act 1989*, although titles remain in the name of the WAMC.

Work is underway to record those parcels of land identified as having been resumed, appropriated or otherwise by the WAMC, and its predecessors. Currently, over 4,100 properties have been recorded. It is estimated that the Register will ultimately record the details of in excess of 5,000 properties with a total area in excess of 80,000 hectares.

Action to dispose of WAMC owned land identified as surplus to requirements is undertaken (where necessary) in consultation with SWC, and in accordance with NSW Government policy.

(i) Lake Illawarra Authority

The Lake Illawarra Authority (LIA) manages 60 hectares of land (generally narrow foreshore strips) and 3,500 hectares of waters (or submerged land). The LIA also manages two Crown Reserves with an area of 6 ha.

2. Rural Fire Service

The NSW RFS was established on 1 September 1997 by the *Rural Fires Act 1997* (the Act). The Act was introduced by the NSW State Government following a 1994 Cabinet Committee Inquiry, a 1994 Legislative Assembly Select Committee Inquiry and a wide ranging Coronial Inquiry into the 1993/94 Bush Fire Emergency. The Act superseded the Bush Fires Act 1949. Under the Act, the NSW RFS replaced the NSW Department of Bush Fire Services and existing bush fire brigades, some of which had been in operation for about 100 years, became incorporated into the NSW RFS.

In 1993/94 severe fires caused the loss of four lives, 205 houses and burned more than 800,000 hectares of land across. During this campaign 20,000 fire fighters were deployed at over 800 fires across NSW. The Cabinet Committee and Legislative Assembly Select Committee recommended pro tempore amendments to the Bush Fires Act 1949 many of which were later incorporated into the Act in 1997.

The Act sets out the structure, duties and powers of all levels of NSW RFS. The objects of the Act are to provide for:

- the prevention, mitigation and suppression of bush and other fires in local government areas (or parts of areas) and other parts of the State constituted as rural fire districts;
- the co-ordination of bush fire fighting and bush fire prevention throughout the State;
- the protection of persons from injury or death, and property from damage, arising from fires; and

- the protection of the environment by requiring certain activities to be carried out having regard to the principles of ecologically sustainable development listed in section 6 (2) of the Protection of the Environment Administration Act 1991.

In addition to legislation, the NSW RFS operates in accordance with its own internal policies and Service Standards (written statements on the operation, management, coordination and control of NSW RFS), Bush Fire Coordinating Committee (BFCC) and Fire Services Joint Standing Committee (FSJSC) policy documents.