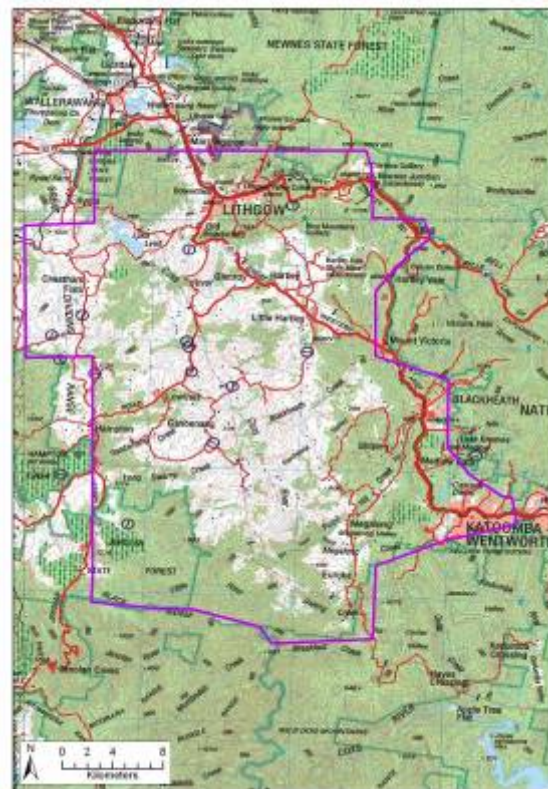


Lithgow



MAINLAND ISLAND CHARACTERISTICS

Jurisdiction	New South Wales
NRM Regions	Central West Hawkesbury/Nepean
LGAs	Blue Mountains Lithgow Oberon
Size	83, 000 hectares
Dominant Type	Eucalypt woodlands
Land Tenure	Agriculture State Forest National Park, World Heritage Area
Surrounding Issues	Land use Pest density Weed density

Overall Priority

Very High

Conservation Value

Very High

Threat Status

Very High

Key Biodiversity Values

Key biodiversity and conservation values of LITHGOW

- 30 threatened species
- 2 threatened communities
- 9 migratory species
- Very high species richness
- Very high endemism
- The Greater Blue Mountains World Heritage Area
- The Greater Blue Mountains Area National/Commonwealth Heritage Place
- Native vegetation present
- Vertebrate pest species present

CONSERVATION VALUE

Categories	Ranks/Scores
1 Biodiversity values	High (12)
2 Uniqueness	Very High (4)
3 Representativeness	Very High (4)
4 Adjacency	Medium (2)
5 Area to perimeter ratio	Medium (2)

THREAT STATUS

Categories	Ranks/Scores
1 Density of pest species	Very High (8)
2 Pest impact level	Very High (8)
3 Invasion fronts/range boundaries	High (3)
4 Land use risk	Very High (5)
5 Weed density	Very High (4)
6 Area without statutory protection	High (3)



Key Threats and Impacts

Pest Species Present or Potentially Present

<input type="checkbox"/>	Cane toad	<input checked="" type="checkbox"/>	Feral cat	<input checked="" type="checkbox"/>	Feral pig	<input checked="" type="checkbox"/>	Rodents
<input checked="" type="checkbox"/>	Carp, European carp	<input type="checkbox"/>	Feral deer	<input type="checkbox"/>	Feral water buffalo	<input type="checkbox"/>	Tilapia, Mozambique Tilapia
<input checked="" type="checkbox"/>	European red fox	<input checked="" type="checkbox"/>	Feral donkey	<input checked="" type="checkbox"/>	Indian Myna, Common Myna	<input type="checkbox"/>	Weather loach; Oriental weather loach
<input checked="" type="checkbox"/>	European wild rabbit	<input checked="" type="checkbox"/>	Feral goat	<input checked="" type="checkbox"/>	Mosquito fish, Plague Minnow	<input checked="" type="checkbox"/>	Wild dog
<input type="checkbox"/>	Feral camel	<input checked="" type="checkbox"/>	Feral horse	<input checked="" type="checkbox"/>	Red-eared slider turtle	<input type="checkbox"/>	Other

Impacts of pest species on matters of National Environmental Significance

Carp, European carp <i>Litoria booroolongensis</i>	Mosquito fish, Plague Minnow <i>Litoria booroolongensis</i> <i>Macquaria australasica</i>
Feral cat <i>Apus pacificus</i> <i>Monarcha melanopsis</i> <i>Eulamprus leuraensis</i> <i>Petrogale penicillata</i> <i>Heleioporus australiacus</i> <i>Potorous tridactylus tridactylus</i> Temperate Highland Peat Swamps on Sandstone	Feral goat <i>Diuris aequalis</i> <i>Petrogale penicillata</i> <i>Paralucia spinifera</i>
Feral dog <i>Merops ornatus</i> <i>Potorous tridactylus tridactylus</i> <i>Petrogale penicillata</i> Temperate Highland Peat Swamps on Sandstone	Feral horse <i>Diuris aequalis</i>
European red fox <i>Gallinago hardwickii</i> <i>Petrogale penicillata</i> <i>Heleioporus australiacus</i> <i>Potorous tridactylus tridactylus</i> <i>Merops ornatus</i> Temperate Highland Peat Swamps on Sandstone	Feral pig <i>Boronia deanei</i> <i>Paralucia spinifera</i> Temperate Highland Peat Swamps on Sandstone White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
	European wild rabbit <i>Petrogale penicillata</i> <i>Xanthomyza phrygia</i> <i>Thesium australe</i> Temperate Highland Peat Swamps on Sandstone

Other threatening processes

- Situated on pest invasion front / range boundary
- High risk land use
- High density of Weeds of National Significance
- Lack of statutory protection
- Increased potential for edge effects
- Isolated from other high conservation value islands

Highest priority biodiversity issues

Pest impacts on *Petrogale penicillata* and Temperate Highland Peat Swamps

Pest management actions listed in recovery plans for *Paralucia spinifera*, *Eulamprus leuraensis* and *Xanthomyza phrygia*

Other threatening processes



CRITICAL SYNOPSIS OF VERTEBRATE PEST MANAGEMENT REGIME

Need for vertebrate pest management	<p>The Lithgow mainland island has significant areas of State Forest along with private land holdings. Overall, the NSW State Plan sets out natural resource management targets, one of which is that by 2015 there is a reduction in the impacts of invasive species.</p> <p>Pest animals have the potential to impact on State Forest plantation productivity, the natural environment and agricultural production in both State forest and adjoining lands by damaging crop trees and other vegetation, competing for food resources and directly preying on desired animal species. Vertebrate pests also pose a significant threat to numerous species protected under the NSW <i>Threatened Species Conservation Act 1995</i> and the EPBC Act that occur in this area.</p>
Planning instruments	<p>Portions of the Lithgow mainland island fall under the following management strategies and policies;</p> <ul style="list-style-type: none"> Blue Mountains Region draft Pest Management Strategy 2007 – 2010 1992 National Forest Policy Statement <i>Forestry Act 1916</i>
Management actions	<p>The 1992 National Forest Policy Statements states that:</p> <ul style="list-style-type: none"> Forest management agencies, such as Forests NSW, will monitor and appropriately control the threat to publicly owned native forest ecosystems posed by feral animals, exotic plants, pests and diseases. Forest management agencies will cooperate with private landowners in developing and implementing measures to protect adjacent public and private forested lands from harmful diseases, weeds and feral animals. <p>Forests NSW specifically contribute to control programs for foxes, dogs, goats, pigs, cattle (Forests NSW, 2008b)</p>
Monitoring regimes	<p>Forests NSW and the NSW National Parks and Wildlife Service monitor activity around feral animal bait stations, baits taken and reports of predation on livestock (Forests NSW, 2008a).</p>
Management responsibility	<p>The following agencies are responsible for the management of the Lithgow mainland island :</p> <ul style="list-style-type: none"> Forests NSW (a public trading enterprise within NSW Department of Primary Industries) NSW Department of Environment and Climate Change NSW National Parks and Wildlife Service Greater Blue Mountains Aboriginal Reference Group Private landholders
Cost-benefit analysis	<p>The NSW Invasive Species Plan highlights that pest management will be prioritized in areas where it provides the best cost to benefit ration in protecting biodiversity, productivity and community most threatened by invasive species.</p>
Special features	<p>\$546, 194 spent on feral animal and weed control in the year 2007 -2008 (Forests NSW, 2008b).</p> <p>Forests NSW Environmental Management System is ISO 14001 certified. This system sets the framework for achieving and continually improving our environmental performance by introducing a systematic approach to measuring and monitoring. Forests NSW is further certified to the Australian Forestry Standard - AS 4708:2007 (AFS)</p>
Summary / comments	<p>This mainland island is almost entirely surrounded by the Greater Blue Mountains World Heritage Area and State Forests. Within these areas, pests are well managed. Therefore the challenge is to integrate pest management on private land holdings within the Lithgow mainland island to achieve effective pest management at a regional scale.</p>

References:

Forests NSW (2008) Forests NSW Seeing Report 2007- 2008. NSW Department of Primary Industries. Orange.

Jones, R., Saunders, G. and Balogh, S. 2006, 'An Economic Evaluation of a Pest Management Control Program: 'Outfox the Fox', Economic Research Report No.29, NSW Department of Primary Industries, Orange.

NSW Department of Primary Industries (DPI) (2008) *NSW Invasive Species Plan 2008-1015*, NSW DPI, Orange.

Available on-line at: <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/nsw-invasive-species-plan>

