

Sydney



MAINLAND ISLAND CHARACTERISTICS

| | |
|---------------------------|--|
| Jurisdiction | New South Wales |
| NRM Regions | Hawkesbury/Nepean Sydney Metro |
| LGA's | 41 (see list below) |
| Size | 382, 000 hectares |
| Dominant Type | Eucalypt woodlands |
| Land Tenure | Urban |
| Surrounding Issues | Land use Pest density Weed density |

| Overall Priority | Conservation Value | Threat Status |
|------------------|--------------------|---------------|
| Very High | Very High | Very High |

Key Biodiversity Values

Key biodiversity and conservation values of SYDNEY

- 87 threatened species
- 7 threatened communities
- 36 migratory species
- Very high species richness
- Very high endemism
- The Greater Blue Mountains World Heritage Area
- 12 National/Commonwealth Heritage Places (see list below)
- Towra Point Nature Reserve Ramsar wetland
- 9 nationally important aquatic ecosystems
- Native vegetation present
- Vertebrate pest species present

CONSERVATION VALUE

| Categories | Ranks/Scores |
|----------------------------------|----------------|
| 1 Biodiversity values | Very High (16) |
| 2 Uniqueness | Very High (4) |
| 3 Representativeness | Very High (4) |
| 4 Adjacency | High (3) |
| 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 | Very High (4) |
| 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 checked="" 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 checked="" 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 |

Potential impacts of pest species on matters of National Environmental Significance

| | | | |
|--|--|--|--|
| Carp, European carp <i>Litoria raniformis</i> | | Wild dog <i>Sterna albifrons</i> <i>Petrogale penicillata</i> <i>Merops ornatus</i> <i>Isoodon obesulus obesulus</i> <i>Potorous tridactylus tridactylus</i> | |
| Feral cat <i>Apus pacificus</i> <i>Macronectes halli</i> <i>Diomedea exulans</i> <i>Monarcha melanopsis</i> <i>Heleioporus australiacus</i> <i>Neophema chrysogaster</i> <i>Isoodon obesulus obesulus</i> <i>Petrogale penicillata</i> <i>Litoria aurea</i> <i>Pterodroma neglecta neglecta</i> <i>Macronectes giganteus</i> <i>Puffinus leucomelas</i> <i>Potorous tridactylus tridactylus</i> <i>Pterodroma leucoptera leucoptera</i> | | Feral goat <i>Cynanchum elegans</i> <i>Pimelea curviflora var. curviflora</i> <i>Petrogale penicillata</i> <i>Pterodroma neglecta neglecta</i> | |
| Feral deer <i>Cynanchum elegans</i> | | Feral horse Eastern Suburbs Banksia Scrub of the Sydney Region | |
| Mosquito fish, Plague Minnow <i>Litoria aurea</i> <i>Macquaria australasica</i> <i>Litoria raniformis</i> <i>Mixophyes balbus</i> | | Feral pig <i>Chelonia mydas</i> <i>Isoodon obesulus obesulus</i> <i>Cynanchum elegans</i> <i>Pimelea curviflora var. curviflora</i> <i>Dermochelys coriacea</i> <i>Pterostylis saxicola</i> <i>Mixophyes iteratus</i> <i>Thalassarche steadi</i> White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland | |
| European red fox <i>Chelonia mydas</i> <i>Macronectes giganteus</i> <i>Dermochelys coriacea</i> <i>Merops ornatus</i> <i>Gallinago hardwickii</i> <i>Neophema chrysogaster</i> <i>Heleioporus australiacus</i> <i>Petrogale penicillata</i> <i>Isoodon obesulus obesulus</i> <i>Sterna albifrons</i> <i>Litoria aurea</i> Towra Point Nature Reserve <i>Potorous tridactylus tridactylus</i> <i>Pterodroma leucoptera leucoptera</i> | | European wild rabbit <i>Cynanchum elegans</i> <i>Petrogale penicillata</i> <i>Lepidium hyssopifolium</i> <i>Pimelea curviflora var. curviflora</i> <i>Macronectes giganteus</i> <i>Pterodroma neglecta neglecta</i> <i>Macronectes halli</i> <i>Thesium australe</i> <i>Neophema chrysogaster</i> <i>Xanthomyza phrygia</i> <i>Pterodroma leucoptera leucoptera</i> Eastern Suburbs Banksia Scrub of the Sydney Region | |

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

Highest priority biodiversity issues

Pest impacts on *Petrogale penicillata*, *Cynanchum elegans* and *Isoodon obesulus obesulus*

Pest management actions listed in recovery plans for marine turtles, albatross, *Mixophyes iteratus*, *Xanthomyza phrygia*

Impacts of cats, foxes, feral pigs and rabbits



CRITICAL SYNOPSIS OF VERTEBRATE PEST MANAGEMENT REGIME

| | |
|--|---|
| Need for vertebrate pest management | <p>There are a variety of management jurisdictions within the Sydney mainland island. 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. Further legislative requirements exist to abate threats (including pests) to threatened species listed under the federal EPBC Act and the NSW Threatened Species Conservation and Fisheries Management Acts.</p> <p>The Towra Point Ramsar site occurs in this mainland island. Therefore, management of vertebrate pests is required in order to protect and conserve the ecological character of the Coorong Ramsar site in order to meet Australia's international obligations as a signatory nation to the Ramsar Convention on Wetlands. Management is further required to ensure Australian Ramsar management principles are met as prescribed under the Environment Biodiversity and Conservation Act 1999. Furthermore, the Ramsar wetland provides key habitat for a number of migratory bird species recognised as species of national significance under the EPBC Act (including the Little Tern, Fairy Tern and Common Tern).</p> |
| Planning instruments | <p>The following management plans apply to the Towra Point Ramsar site within the Sydney mainland island:</p> <ul style="list-style-type: none"> ■ NSW Invasive Species Plan (2008-2015) ■ Towra Point Nature Reserve Plan of Management (2001) ■ Botany Bay National Park Plan of Management (2002) ■ NSW Ramsar Plan 2009 (DECC, 2009) |
| Management actions | <p>Within the Ramsar site removal of pest animal species is undertaken regularly. Extensive fox baiting is undertaken prior to the Little Tern breeding season. Pig eradication was undertaken in 1993 and has not been necessary again. Strategies for controlling or eradicating pest plants and animals within the Reserve are being implemented according to the pest management plan for the Reserve. Management to eliminate inappropriate activities such as camping, and the use of horses and dogs within the reserve, which may compromise the conservation values of the Reserve, is being carried out in accordance with the plan of management with the Reserve (Australia, 1999).</p> |
| Monitoring regimes | <p>Monitoring of Little Tern breeding has been undertaken by trained wardens to record the breeding success of Little Terns within the Towra Point Ramsar site for several years (DECC, 2008).</p> |
| Management responsibility | <p>NSW National Parks and Wildlife Service has responsibility for the Towra Point Ramsar Site. While overall pest management in NSW lies with a number of groups including several state agencies and land managers.</p> |
| 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 ratio in protecting biodiversity, productivity and community most threatened by invasive species.</p> |
| Special features | <p>A number of schools and universities carry out field studies within TPNR (Australia, 1999). Local aboriginal groups also operate in the area, implementing dune stabilization works, comprehensive weeding and bush regeneration to reduce the impact of introduced plants, and the extensive fox baiting program (DECC, 2008).</p> |
| Summary / comments | <p>Management across a wide area that is dominated by private land holdings and urban environments is a major challenge to pest management. Overall, pest management is well coordinated and appears to be effective within the Towra Point Ramsar Site.</p> |

LGA list:

| | | |
|----------------|--------------|----------------|
| Auburn | Hornsby | Randwick |
| Bankstown | Hunters Hill | Rockdale |
| Baulkham Hills | Hurstville | Ryde |
| Blacktown | Kogarah | Strathfield |
| Blue Mountains | Ku-Ring-Gai | Sutherland |
| Botany Bay | Lane Cove | Sydney |
| Burwood | Leichhardt | Unincorporated |
| Camden | Liverpool | Warringah |
| Campbelltown | Manly | Waverley |
| Canada Bay | Marrickville | Willoughby |
| Canterbury | Mosman | Wingecarribee |
| Fairfield | North Sydney | Wollondilly |
| Hawkesbury | Parramatta | Woolahra |
| Holroyd | Penrith | |

National/Commonwealth Heritage Places List:

ADI Site Western Precinct
Cranebrook Airservices Land
Former ADI Site
Ku-ring-gai Chase National Park, Lion, Long and Spectacle Island Nature Reserves
Malabar Headland
Nepean River Corridor
Orchard Hills Cumberland Plain Woodland
Royal National Park and Garawarra State Conservation Area
Shale Woodland Llandilo
The Greater Blue Mountains Area
Westcliff Colliery Area 5
Western Sydney Shale Woodland St Marys

References:

Australia (1998) Information on Ramsar Wetlands. Towra Point Nature Reserve.

Department of Environment and Climate Change (2008) Wild About Terns: Looking After our Shorebirds. Department of Environment and Climate Change. Sydney Basin.

NSW Department of Primary Industries (DPI) (2008) *NSW Invasive Species Plan 2008-2015*, NSW DPI, Orange.
Available on-line at: <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/nsw-invasive-species-plan>