



Environment,
Climate Change & Water
National Parks & Wildlife Service



Macquarie Nature Reserve & Roto House Historic Site

Plan of Management



**MACQUARIE NATURE RESERVE
AND
ROTO HOUSE HISTORIC SITE

PLAN OF MANAGEMENT**

NSW National Parks and Wildlife Service

Part of the Department of Environment, Climate Change and Water

February 2011

This plan of management was adopted by the Minister for Climate Change and the Environment on 21st February 2011.

Acknowledgments

This plan of management is based on a draft plan for Macquarie Nature Reserve prepared by staff of the Mid North Coast Region of the NSW National Parks & Wildlife Service (NPWS), part of the Department of Environment, Climate Change and Water.

The NPWS acknowledges that this reserve is in the traditional country of the Birpai Aboriginal people.

Cover photo courtesy of Hydro Photographics.

For additional information or any inquiries about this reserve or this plan of management, contact the NPWS Hastings Area Office, 22 Blackbutt Road Port Macquarie NSW 2444 or by telephone on (02) 6588 5555.

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FOREWORD

Macquarie Nature Reserve and Roto House Historic Site cover a combined area of 12 hectares in the town of Port Macquarie on the mid north coast of NSW.

Macquarie Nature Reserve protects diverse vegetation which includes rainforest, sclerophyll woodland, swamp vegetation and coastal banksia. Four threatened animal species have been recorded in the reserve, the koala, barred cuckoo-shrike, square-tailed kite and grey-headed flying fox.

Roto House Historic Site contains the historic Roto House, which was built in 1890 for the Flynn family and is one of the few remaining examples of late Victorian architecture in Port Macquarie. It is currently used as a visitor interpretation centre and 'house museum'. It also contains a Koala Hospital which is one of the leading koala recovery and rehabilitation centres in Australia and a well-known attraction within the Port Macquarie area.

The New South Wales *National Parks and Wildlife Act 1974* requires that a plan of management be prepared for each nature reserve and historic site. A plan of management is a legal document that outlines how an area will be managed in the years ahead.

A draft plan of management for Macquarie Nature Reserve was placed on public exhibition from 9th November 2007 until 11th February 2008. On 1st October 2010, part of the nature reserve was reserved as an historic site as proposed in the exhibited plan of management. The submissions received on the draft plan were carefully considered before adopting this plan.

This plan contains a number of actions to achieve the State Plan priority to "Protect our native vegetation, biodiversity, land, rivers and coastal waterways", including rehabilitation of native vegetation communities outside of the historic precinct, control of introduced plants and animals, and signs and education programs to highlight wildlife crossing areas in the vicinity of the reserve. The plan also contains a number of actions to help "Increase the number of visits to parks", including adaptive reuse of part of Roto House for a café with the remainder being used as an interpretation and visitor centre.

This plan of management establishes the scheme of operations for Macquarie Nature Reserve and Roto House Historic Site. In accordance with section 73B of the *National Parks and Wildlife Act 1974*, this plan of management is hereby adopted.



Frank Sartor MP
Minister for Climate Change and the Environment

1. MACQUARIE NATURE RESERVE AND ROTO HOUSE HISTORIC SITE

Macquarie Nature Reserve and Roto House Historic Site (referred to herein as the “planning area”) are located in the town of Port Macquarie on the mid north coast of NSW. They are located approximately 2 kilometres south of the central business district and cover a combined area of approximately 12 hectares.

Macquarie Nature Reserve was gazetted as a nature reserve in 1966 over the area west of Lord Street, which was at that time designated as a “Forest Reserve”. The land within the “Forest Reserve” had been donated in 1964 by Port Macquarie Municipal Council to the Fauna Protection Panel (the organisation preceding NPWS), principally for the protection of koala habitat. In 1968 the land west of Melanie Place was added to the nature reserve, and in 1970 the area east of Lord Street was added to the nature reserve following its purchase jointly by the Council and NPWS from the Flynn family. The reserve was named ‘Macquarie Nature Reserve’ because of its location within Port Macquarie.

Roto House, which was built in 1890, was within the section of the nature reserve east of Lord Street. The house is one of the few remaining examples of late Victorian architecture in Port Macquarie. On 1st October 2010, part of the nature reserve containing Roto House, comprising approximately 4 hectares, was reserved as Roto House Historic Site.

A koala hospital was constructed in the nature reserve in 1975. Today the hospital, which is within the historic site and operated by the Koala Preservation Society, is one of the leading koala recovery and rehabilitation centres in Australia.

The planning area is an irregularly shaped area of land obtained by NPWS for both nature and historic conservation. Surrounded by residential development, the nature reserve is divided by both the historic site and by Lord Street, which is a major arterial road. The historic site also adjoins Lord Street.

Though the planning area is situated in an urban environment, it is part of a habitat corridor through the town of Port Macquarie which includes Kooloonbung Creek Nature Park (managed by Port Macquarie-Hastings Council) to the west, Sea Acres Nature Reserve to the south east, and Lake Innes Nature Reserve to the south west.

The planning area is within the Port Macquarie-Hastings Local Government Area, Birpai Local Aboriginal Land Council Area and the Northern Rivers Catchment Management Authority Area.

2. MANAGEMENT CONTEXT

2.1. Legislative and Policy Framework

The management of nature reserves and historic sites in NSW are in the context of a legislative and policy framework, primarily the *National Parks and Wildlife Act 1974* (NPW Act), the NPW Regulation, the *Threatened Species Conservation Act 1995* (TSC Act) and the policies of the National Parks and Wildlife Service (NPWS). The policies are based on the legislative background and internationally accepted principles of park management. They relate to nature conservation, Aboriginal and historic heritage conservation, recreation, commercial use, research and communication.

Other legislation, international agreements and charters may also apply to management of the area. In particular, the *Environmental Planning and Assessment Act 1979* (EPA Act) requires the assessment and mitigation of the environmental impacts of any works proposed in this plan.

A plan of management is a statutory document under the NPW Act. Once the Minister has adopted a plan, no operations may be undertaken within Macquarie Nature Reserve or Roto House Historic Site except in accordance with this plan. This plan will also apply to any future additions to the planning area. Should management strategies or works be proposed in future that are not consistent with this plan, an amendment to the plan will be required.

2.2. Management Purposes and Principles

Nature Reserves

Nature reserves are reserved under the NPW Act to protect and conserve areas containing outstanding, unique or representative ecosystems, species, communities or natural phenomena.

Under the Act (section 30J), nature reserves are managed to:

- conserve biodiversity, maintain ecosystem functions, and protect geological and geomorphological features and natural phenomena;
- conserve places, objects, features and landscapes of cultural value;
- promote public appreciation, enjoyment and understanding of the reserve's natural and cultural values; and
- provide for appropriate research and monitoring.

Nature reserves differ from national parks in that they do not have as a management principle to provide for visitor use.

Historic Sites

Historic sites are reserved under the NPW Act to protect and conserve areas associated with a person, event or historical theme, or containing a building, place, feature or landscape of cultural significance.

Under the Act (section 30F), historic sites are managed to:

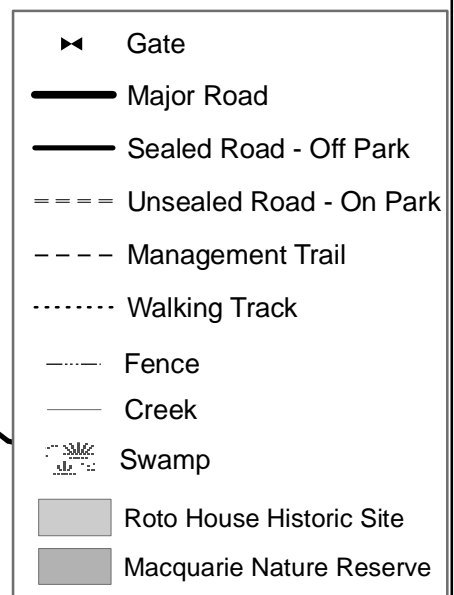
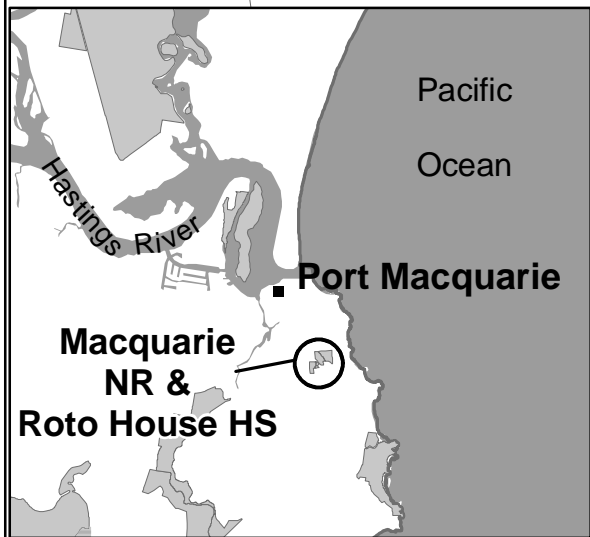
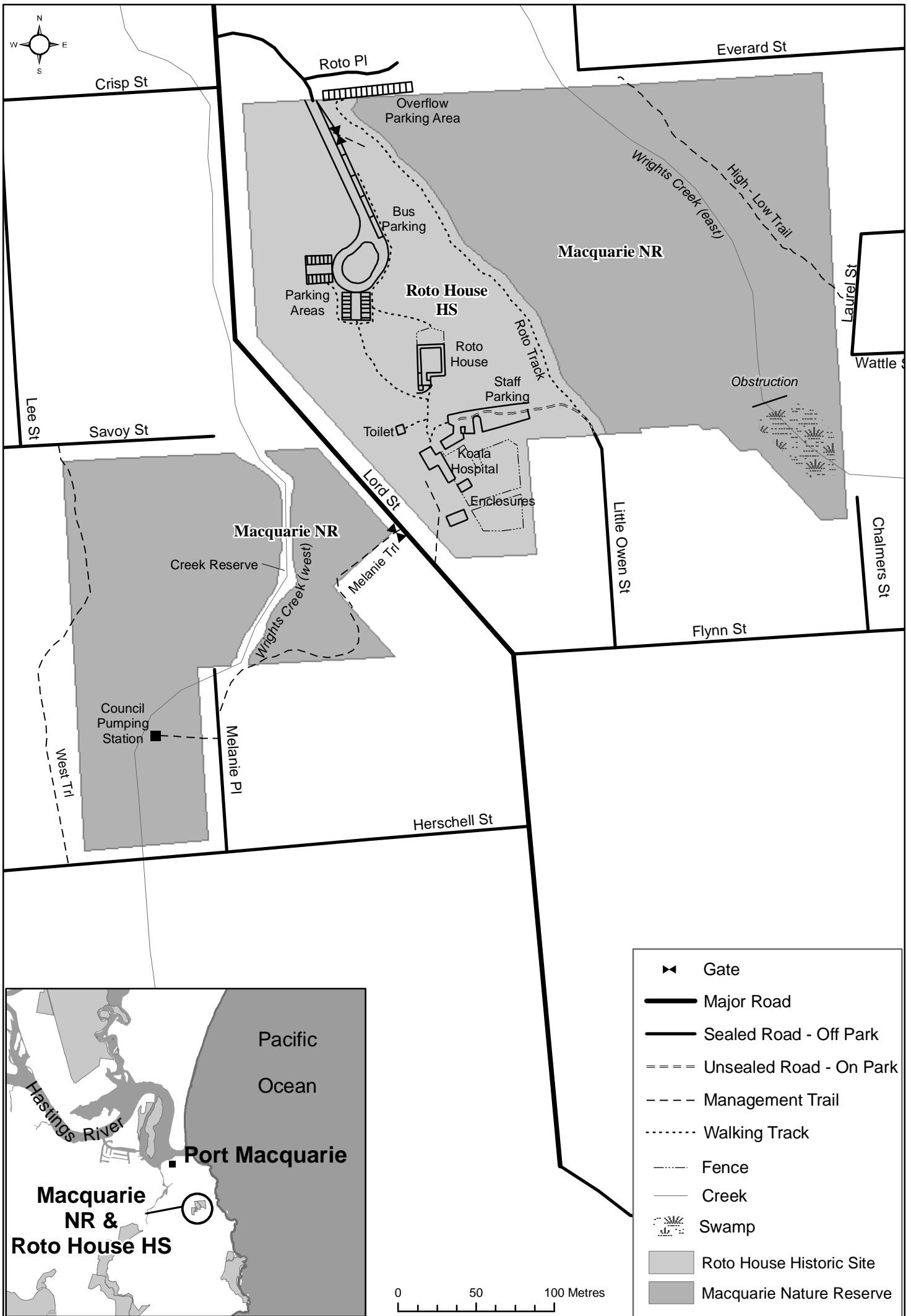
- conserve places, objects, features and landscapes of cultural value;
- conserve natural values;
- provide for sustainable visitor or tourist use and enjoyment that is compatible with conservation of natural and cultural values;
- provide for sustainable use (including adaptive reuse) of any buildings or structures or modified natural areas having regard to conservation of natural and cultural values;
- promote public appreciation and understanding of the site's natural and cultural values; and
- provide for appropriate research and monitoring.

Historic sites are established for the primary purpose of protecting and promoting cultural values.

2.3. Management Directions

In addition to the above general objectives, the planning area will be managed to:

- conserve and rehabilitate the native vegetation communities, with particular emphasis on encouraging the regeneration of grassland areas outside of the historic site;
- maintain an important area of koala habitat in the Port Macquarie area and a koala rehabilitation site;
- preserve and promote the appropriate use of Roto House, including adaptive reuse and educational opportunities to interpret the values of Roto House; and
- protect the Wrights Creek environs.



3. VALUES OF THE RESERVE

The location, landforms and plant and animal communities of an area have determined how it has been used and valued. Both Aboriginal and non-Aboriginal people place values on natural areas, including aesthetic, social, spiritual and recreational values. These values may be attached to the landscape as a whole or to individual components, for example to plant and animal species used by Aboriginal people. This plan of management aims to conserve both natural and cultural values. For reasons of clarity and document usefulness, natural heritage, cultural heritage, threats and on-going use are dealt with individually, but their inter-relationships are recognised.

There has been some modification of the native vegetation in the planning area due to its past use as a home site and for grazing and agricultural purposes. However today, in the urban landscape of Port Macquarie, the planning area protects a significant area of diverse vegetation, which includes communities such as rainforest, sclerophyll woodland, swamp vegetation and coastal banksia.

The planning area provides important koala habitat and is recognised as part of a major habitat corridor for this species in Port Macquarie.

Roto House, which was built in 1890, lies within the historic site. The house is one of the few remaining examples of late Victorian architecture in Port Macquarie.

A koala hospital was constructed in the nature reserve in 1975. Today the hospital, which is within the historic site and operated by the Koala Preservation Society, is one of the leading koala recovery and rehabilitation centres in Australia.

3.1. Landform, Geology and Soils

The landform in the planning area is generally undulating with low relief. Elevation ranges from 2 metres to 24 metres above sea level. The steepest sections are located in the north-eastern and north-western corners of the planning area.

Tributaries of Wrights Creek flow through the eastern and western section of the nature reserve. Wrights Creek flows into Kooloonbung Creek and then ultimately the Hastings River. Wrights Creek originates approximately 3 kilometres south of the planning area near Sea Acres Nature Reserve.

The geology in the planning area consists generally of slate, chert, minor slaty sandstone and rare metabasalt (Gilligan *et al*, 1987). The geology consists of two discrete types, the result of a fault that extends through the planning area. The geology west of the fault consists of schist, phyllite and slate, while the geology east of the fault is characterised by serpentine and ultrabasic intrusives (Geological Survey of NSW, 1968). Soil types in the planning area range from basaltic soil and clay loams that support sclerophyll forests and rainforest, with grey podsols found around the creek lines.

3.2. Native Plants

The vegetation in the nature reserve consists principally of rainforest, sclerophyll woodland, swamp vegetation and coastal banksia. The main vegetation community in the nature reserve is sclerophyll woodland, which is dominated by species such as swamp mahogany (*Eucalyptus robusta*), tallowwood (*E. microcorys*) and blackbutt (*E. pilularis*). There are some particularly large specimens of blackbutt located in the planning area near the boundary with Lord Street.

Rainforest is located mainly in the western section of the nature reserve, though there is also a small portion in the north-east. Dominant species include brush box (*Lophostemon conferta*), flooded gum (*E. grandis*), small-leaf fig (*Ficus fraseri*), bangalow palm (*Archontophoenix cunninghamiana*) and sandpaper fig (*F. obliqua*).

The vegetation around Roto House and the Koala Hospital is open woodland with grassed areas. In accordance with the conservation management plan (NPWS, 1999), this area is regularly mown to maintain a lawn around Roto House. Also in this area there are a number of trees that were planted (see Historic Heritage and Introduced Plants).

In the eastern section of the nature reserve there are small sections of swamp oak (*Casuarina glauca*) and coastal banksia (*Banksia integrifolia*).

A section along Wrights Creek contains a large artificial swamp area dominated by reeds (*Phragmites australis*).

There are no known threatened or significant plant species in the planning area. Rainforest cassia (*Senna acclinis*) has been recorded in the vicinity (Ecovision, 1998) and the nature reserve may provide suitable habitat for this species.

The vegetation in the planning area has been significantly modified due to previous land practices (see Historic Heritage). Prior to 1970, there was a large cleared area east of Roto House. In 1972, the Koala Preservation Society planted this area of approximately 0.5 hectares of what is now part of the historic site with koala feed trees, primarily swamp mahogany.

3.3. Native Animals

Four threatened animal species have been recorded in the planning area: the koala (*Phascolarctos cinereus*), barred cuckoo-shrike (*Coracina lineata*), square-tailed kite (*Lophoictinia isura*) and the grey-headed flying fox (*Pteropus poliocephalus*). The planning area is known as important koala habitat and recognised as part of a major habitat corridor for this species in Port Macquarie.

A survey of bird species was undertaken in the planning area in 1993, during which 58 bird species were recorded. In 2003 and 2004 a pair of square-tailed kites nested in a tree in the nature reserve. There was one fledgling square-tailed kite in 2003 but it did not survive. It is thought that the young kite was attacked by territorial crows in the area. It is considered quite unusual for a bird of prey to nest so close to urban areas. Other

significant bird species often sighted in the planning area include the green catbird (*Ailuroedus crassirostris*), the satin bowerbird (*Ptilonorhynchus violaceus*), the regent bowerbird (*Sericulus chrysocephalus*) and the crested shrike tit (*Falcunculus frontatus*).

Seven species of reptiles have also been recorded in the planning area, including the diamond python (*Morelia spilotes*) and the swamp snake (*Hemiaspis signata*).

In 2004, a survey was undertaken in the nature reserve by NSW Fisheries for possible exotic fish in Wrights Creek. The survey recorded a total of seven native fingerlings in the creek, including sea mullet (*Mugil cephalus*) and Australian smelt (*Retropinna semoni*), as well other native fish and some exotic fish (refer Pest Animals).

In the past the nature reserve contained more species of wildlife, however, due to the pressures of urban development most of these species no longer inhabit the area. Wallabies (*Macropus* spp.), pademelons (*Thylogale* spp.) and spotted-tailed quolls (*Dasyurus maculatus*) were some of the species that used to be regularly found in the area.

A Threatened Species Priorities Action Statement (PAS) has been prepared that identifies strategies and actions to promote the recovery of threatened species, populations and ecological communities and manage key threatening processes (DEC, 2006). The PAS incorporates actions from existing recovery plans including the recovery plan for the koala.

3.4. Aboriginal Heritage

Aboriginal communities have an association and connection to the land. The land and water biodiversity values within a landscape are central to Aboriginal spirituality and contribute to Aboriginal identity. Aboriginal communities associate natural resources with the use and enjoyment of foods and medicines, caring for the land, passing on cultural knowledge and strengthening social bonds. Aboriginal heritage and nature are inseparable from each other and need to be managed in an integrated manner across the landscape.

Prior to European occupation, vegetation similar to that in the nature reserve would have extended over much of the coastal strip of Port Macquarie. These areas would have provided the local Aboriginal people with a variety of foods, medicines, shelter and utensils.

There are no Aboriginal sites recorded in the planning area. The Birpai people and the Birpai Local Aboriginal Land Council represent the contemporary Aboriginal involvement in the management of the planning area.

3.5. Historic Heritage

Roto House is the cultural centrepiece of the historic site and is of rare local heritage significance. It is one of the few remaining 19th century buildings of Port Macquarie. The house and its setting are listed as heritage items in the Hastings Local Environment Plan (LEP), Regional Environmental Plan (REP), State Heritage Inventory (SHI), NPWS Section 170 Register and National Trust Register.

The eleven-room weatherboard house is constructed of local red mahogany in the Victorian-Georgian style. It was built by James Condon for district surveyor John Flynn in c.1890-91 and was subsequently occupied by three generations of the Flynn family.

Roto House was probably built in 1891 as an eight-room house with a detached laundry and veranda on all sides. Soon after, in 1894, a wing was added to the rear containing a kitchen and maids room/pantry which was connected by a kitchen veranda to the east. Twentieth century alterations include the addition of a veranda to the west side of the kitchen wing and a laundry to the end of this veranda in 1947. Flush toilets replaced earlier pit toilets around this time.

A condition of the purchase of the Flynn property in 1966 was that the last residing Flynn family members could remain on the property. They did so until 1979.

Roto House was extensively restored by NPWS between 1980 and 1982. Following completion of the restoration works, parts of the house were furnished with period furniture borrowed from Hill End and from the Public Works Department. It served as the NPWS Port Macquarie District office, with a one-room visitor centre, from 1982 until 1996. The house has functioned as a visitor interpretation centre and 'house museum' since 1996, staffed by volunteers under the management of NPWS.

A Conservation Management Plan (CMP) (NPWS, 1999) outlines works required to maintain the fabric of the house and recommended adaptive reuse of the house to provide income to meet the costs associated with maintenance of the house and to encourage more visitor use. It also recommended dedicating the curtilage of Roto House as a historic site, as adaptive reuse of the house for commercial purposes is not permissible within a nature reserve.

Interpretation of Roto House currently includes six reconstructed room settings, guided tours, information panels and showcases exhibiting Flynn artefacts and historic documents. Much of the furniture displayed does not belong to the house, but further 'Flynn' objects are continually being sourced and are either donated or on-loan to Roto House. An Interpretation and Collections Management Plan (Museum Planning Services Australia, 2003) was prepared to guide NPWS in the management of artefacts and their interpretation.

A Conservation Maintenance Plan for Roto House (Boram *et al*, 2006) has been prepared to identify promptly any deterioration in the building fabric and take appropriate remedial action to retain the heritage significance of the place.

Apart from the house there are a number of other historical sites associated with Roto House listed on the NPWS Section 170 Register (Historic Heritage). These include an orchard, vineyard, stables and the grave of Mary Flynn. The house's former tennis court and outbuildings, including the barn, sulky shed, dray shed, dairy, creamery and winery, all have potential for archaeological deposits of local site specific significance.

In 2009, the NPWS contracted the preparation of a Feasibility Study and Business Plan for Roto House (Tonkin Zulaikha Greer and Horizon 3, 2009). A key aim of the feasibility study and business plan was to identify opportunities for business operations and revenue generation for the development of Roto House and its surrounds that maximise

sustainable visitor use while ensuring historic, cultural heritage and environmental values are maintained. Detailed market analysis, consideration of the heritage fabric of the house and the need to retain a commercial versus non-commercial balance resulted in a final concept for Roto House.

The preferred option involves the adaptive reuse of part of Roto House for a 40-60 seat café with the remainder being used as an interpretation and visitor centre. The proposal involves converting the existing kitchen and office into a commercial kitchen to serve the café. The former laundry is to be converted to staff amenities; the existing bathroom to a cool room and dry store. Seating is proposed in the former dining room, with informal seating in the former lounge, consistent with the previous uses of the rooms. Outdoor seating is proposed around the veranda and on a new timber deck to the south of the house.

Interpretation of the history of the Roto House and the Flynn family will be contained in the two front rooms, consistent with the recommendations contained in the Interpretation and Collections Management Plan (Museum Planning Services Australia, 2003). The remaining three rooms can remain as is initially, with the option of flexible display in the future. One of these rooms could also house lockers for volunteers, and NPWS information.

A Statement of Heritage Impact was prepared for the proposed adaptive reuse of Roto House and its surrounds as part of the Roto House Feasibility Study and Business Plan (Tonkin Zulaikha Greer and Horizon 3, 2009). The proposed adaptive reuse of Roto House as a café will have minimal impact on the heritage significance of the place. Adaptive reuse of Roto House will provide for sustainable tourism and will generate funds to ensure its ongoing maintenance and conservation for future generations to appreciate.

3.6. Visitor Opportunities and Education

The historic site is a popular destination for tourists, school groups and the local community. The Koala Hospital is a well-known attraction within the Port Macquarie area, particularly during peak holiday times. It is estimated that approximately 80,000 – 120,000 people visit the Koala Hospital each year.

The Koala Hospital is open 365 days a year and visitors are welcome at all times during the day, however a 'Feed, Walk and Talk' tour is conducted every afternoon at 3.00 p.m. The Koala Hospital also conducts organised coach and educational tours for school groups that are becoming increasingly popular.

Roto House is currently open to the public seven days a week as a house museum with an information centre staffed by volunteers. Detailed visitor statistics have not been collected for the planning area, however the Roto House Volunteers keep basic visitor records which reflect that approximately 13,000 people visit Roto House annually. It is assumed that most of these are visiting the Koala Hospital as the key attractor to the site and opportunistically visit Roto House as a secondary destination.

The range of other facilities available to visitors includes: car parking; toilets; signage and interpretation; open space and recreation areas; an educational room at the Koala

Hospital; and the Roto Track and High-Low Trail which are regularly used by walkers and bicycle riders.

Roto House is occasionally used for functions and events, such as craft fairs and small scale music performances.

Port Macquarie-Hastings Council has proposed the use of Roto Track and/or High-Low Trail as part of an urban cycleway. There are existing conflicts between pedestrians/bicycles and vehicles at the Little Owen Street entry to Roto Track, and this will need to be addressed if the track is to form part of a cycleway.

The Feasibility Study and Business Plan for Roto House (Tonkin Zulaikha Greer and Horizon 3, 2009) supports the adaptive reuse of part of Roto House for a 40-60 seat café with the remainder being used as an interpretation and visitor centre (see Section 3.5). It also proposes outdoor seating on the veranda and on a new timber deck to the south of the house, a new picnic area to the east of the house for public use, and a level area west of the house suitable for the erection of a marquee.

The Feasibility Study and Business Plan for Roto House recommends that the interpretation of the history of the Roto House and the Flynn family be contained in the two front rooms, consistent with the recommendations contained in the Interpretation and Collections Management Plan (Museum Planning Services Australia, 2003). The remaining three rooms can remain as is initially, with the option of flexible display in the future. One of these rooms could also house lockers for volunteers, and NPWS information.

Other complementary opportunities for Roto House and surrounds include: children's parties, special event days, private dining, fairs, exhibits such as arts and crafts, garden expos, small scale music events consistent with its current use, sympathetic product launches e.g. Port Macquarie-Hastings Council 'Grow Me Instead', catered functions and educational tours e.g. school and probity groups and a self guided tour. These opportunities would need to be managed in keeping with the cultural significance of the place.

4. THREATS TO RESERVE VALUES

4.1. Introduced Plants

The planning area is subject to infestation by bushland weed species due to its location in an urban environment. Weeds are spread in the planning area from a variety of sources such as seed dispersal (by wind, animals etc), illegal dumping of garden clippings, and by water along Wrights Creek.

A draft pest management strategy has been prepared for Macquarie Nature Reserve (NPWS, 2005), which outlines priorities, control methods and bush regeneration techniques for introduced plants recorded in the reserve.

The major weed species of concern in the planning area are camphor laurel (*Cinnamoumum camphora*), bitou bush (*Chrysanthemoides monilifera*), lantana (*Lantana camara*), crofton weed (*Ageratina adenophora*), cassia (*Cassia floribunda*) and ochna (*Ochna serrulata*). Bitou bush and crofton weed are listed as noxious weeds in the Port Macquarie-Hastings Local Government Area.

Bush regeneration and weed control have been regularly undertaken in the planning area since 1999. A number of dedicated community volunteers, GreenCorps, and contracted bush regenerators have worked in the planning area over the years.

In the early 1900s, camphor laurel was planted for shade trees to the front and rear of Roto House, and along the avenue in the historic site known as the Roto Track. Camphor laurel regularly produces large quantities of seed and is categorised as an environmental weed by Port Macquarie-Hastings Council. In recent years, a number of large camphor laurel trees have been removed from the area around Roto House and other parts of the planning area.

4.2. Pest Animals

Pest animal species that have been recorded in the planning area include the fox (*Vulpes vulpes*) and feral cat (*Felis catus*). There were two sightings in the reserve of Rusa deer (*Cervus timornesis*) in 2004, though this recording is considered rare and the deer have not been sighted since. There is also concern that domestic cats and dogs may roam in the planning area. Pest management is undertaken in the planning area in accordance with the Mid North Coast Region Pest Management Strategy (NPWS, 2008) and the Draft Macquarie Nature Reserve Pest Management Strategy (NPWS 2005a). Predation by the feral cat and the fox are both listed as threatening processes to native animals under the TSC Act and the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In 2003, NPWS found koi carp (*Cyprinus carpio*) in Wrights Creek. A subsequent survey in Wrights Creek by the NSW Department of Primary Industries (Fisheries) (now Industry and Investment NSW) recorded two introduced fish species, koi carp and eastern gambusia (*Gambusia holbrooki*). A small number of koi carp were removed by electric stunning.

4.3. Fire Management

Fire is a natural feature of many environments and is essential to the survival of some plant communities. However, inappropriate fire regimes can lead to loss of particular plant and animal species and communities. Fire can also damage cultural heritage and visitor facilities and can threaten visitors and neighbouring land. The ecological consequences of high frequency fire have been listed as a key threatening process under the TSC Act.

The primary fire management objectives of the NPWS are to protect life and property and community assets from the adverse impacts of fire, whilst managing fire regimes to maintain and protect biodiversity and cultural heritage (NPWS, 2005b). The NPWS uses a zoning system for bushfire management which is compatible with the zoning used by the Hastings Bush Fire Management Committee (BFMC) in its bushfire risk management plan.

In regard to the planning area, fire management strategies are included in this plan of management.

Although there are some areas with high fuel loads, wildfire is not considered to be a significant threat to the planning area, due to the moist sclerophyll and rainforest vegetation, and fire advantages such as Wrights Creek and the surrounding roads and fire breaks. There have been small isolated fires caused by arson. Quick response and suppression of wildfire has prevented fires from spreading or causing any significant impacts.

NPWS has assessed the planning area for fire management planning purposes and has zoned the nature reserve primarily as a Land Management Zone (LMZ). The primary objective within LMZs is the conservation of biodiversity and protection of culturally significant features from fire. The majority of the nature reserve has been designated as a LMZ because it does not have a high level of bushfire risk and does not have a history of bushfire ignitions or known areas of high bushfire behaviour potential. The LMZ does not require intensive management and focuses on those actions appropriate to conserve biodiversity and cultural heritage.

Prior to gazettal the planning area contained large areas of cleared grassland. It is now regaining its former vegetative cover which was rainforest and very moist sclerophyll forest with rainforest understorey. As this occurs, fire will be further inhibited by the natural vegetation.

Requirements for most plant species can be summarised on the basis of vegetation communities and there is a threshold in fire regime variability, which marks a critical change from a high species diversity to low species diversity. The following regime guidelines have been identified for vegetation communities in the nature reserve.

Table 1. Fire Interval Guidelines for Protection of Vegetation Communities.

Vegetation Community	Minimum Interval	Maximum Interval	Notes
Rainforest	n/a	n/a	Fire should be avoided
Swamp sclerophyll forest	7	35	
Sclerophyll grassy woodland	5	40	

Source: Bradstock *et al* (2003)

The historic site has been zoned as an Asset Protection Zone (APZ). APZs provide fuel-reduced areas around assets. The primary fire management objective in APZs is the protection of life and property. The grassed area will be regularly mowed and slashed to maintain minimal fuel loads near these assets.

To help protect surrounding properties, NPWS will undertake mechanical and hand fuel reduction programs along management trails. NPWS will encourage Port Macquarie-Hastings Council to maintain management trails bordering the reserve west of Lord Street (see Map). Of particular concern is the Strategic Fire Advantage Zone on council land north-east of the reserve, near Everard and Laurel Streets. In 2004, fuel loads were reduced in this area through widening of the firebreak and the removal of some understorey vegetation on the reserve. The north-eastern corner of the nature reserve is now permanently marked on the ground to maximise clearing width without incursion into the reserve.

NPWS maintains cooperative arrangements with Port Macquarie-Hastings Council, surrounding landowners, NSW Fire and RFS brigades and is actively involved in the Hastings Bush Fire Management Committee. Cooperative arrangements include fire planning, fuel management and information sharing.

4.4. Isolation and fragmentation

The area surrounding the planning area has been extensively cleared for urban development, which has resulted in a high loss of biodiversity and fragmentation of habitat in the region. Long term conservation of biodiversity depends upon the protection, enhancement and connection of remaining habitat across the landscape, incorporating vegetation remnants on both public and private lands. Nearby vegetated areas contribute to the habitat values of the nature reserve and provide ecological corridors to other forested areas. Maintaining the integrity of the remaining habitat within the nature reserve and, where possible, linking this to adjacent areas of bushland to facilitate wildlife corridors is important in ensuring long term viability of the reserve's biological values.

4.5. Growth in residential development

Significant urban pressures are impacting on the conservation values of the nature reserve. Residential development in the immediate vicinity of the nature reserve is continuing to increase, and in few last years development in the surrounding locality has changed from low density to medium density housing.

Also, Lord Street, which separates the western section of the nature reserve and historic site (see Map), has experienced a substantial increase in vehicle traffic over recent years due to the growth of the Port Macquarie township. The increase in car traffic near the planning area is likely to be restricting the movement of wildlife to and from the planning area. Lord Street also poses a risk to visitor safety.

4.6. Water catchment and drainage

In recent years, significant areas of vegetation within the catchment of Wrights Creek have been cleared for development. This hardening of surfaces with building, roofing, pavements and kerb and guttering, has reduced the ability for water infiltration into the soil and therefore increased water runoff during high rainfall events. The likely impact is that water levels in Wrights Creek will increase during heavy rainfall and this may lead to scouring and soil erosion of stream banks, possible localised flooding, and weeds and gross pollutants entering the reserve.

Wright's Creek has been artificially dammed by construction of a branch off the sewer main which runs through and under the reserve. The resulting swamp is now heavily vegetated, mainly with reeds, and is affecting stream flow along Wrights Creek. It may also be contributing to flooding in the catchment above the obstruction during high rainfall events. Port Macquarie-Hastings Council is currently seeking funding to prepare a flood study and management plan for Wrights Creek.

The western branch of Wrights Creek runs through the nature reserve from Savoy Street to Melanie Place (see Map). Its inclusion in the nature reserve would mean that NPWS could better protect and manage the creek.

4.7. Inappropriate uses

Given the close proximity of the nature reserve to an urban environment, a number of activities occur that are inconsistent with the purposes of a nature reserve. There are several informal walking tracks, caused by people walking off the formed tracks, throughout the nature reserve that are contributing to soil erosion and the spread of weed species in some locations. Occasionally structures such as bike jumps, cubbies and shelters have also been constructed in the nature reserve.

There are ongoing issues with people walking their dogs through the planning area, and dumping garden refuse.

5. OTHER USES

5.1. Non NPWS uses

The Koala Hospital, which is located in the historic site, is operated by the Koala Preservation Society under a peppercorn lease. Between 150 and 200 sick and injured koalas are treated at the hospital each year. Most koalas treated come from Port Macquarie area, but they occasionally come from other areas on the Mid North Coast as well as the Great Lakes, Hunter, New England and Coffs Harbour areas. The rehabilitated koalas are released back to the wild. Some, however, have debilitating injuries which may require euthanasia or permanent residence at the hospital.

The Koala Preservation Society is required to follow a Deed of Lease. This includes the requirement to obtain written consent from the NPWS Regional Manager for any works such as the erection of buildings, structures and any other improvements. Any new buildings or extensions to buildings (including within the lease area) not covered in this plan will require an amendment to the plan unless they are modifications to existing structures required to meet licence standards related to the welfare of the animals.

The Koala Preservation Society must also adhere to their licence under the *Exhibited Animals Protection Act 1986*, administered by Industry and Investment NSW, in relation to the display of animals, and to their licence under the NPW Act to rehabilitate and release sick, injured and orphaned koalas. The licensee and authorised persons operating under this latter licence must at all times comply with the guidelines and requirements of the NPWS Rehabilitation of Fauna Policy, and any directives from NPWS authorised officers.

There are a number of easements over the planning area covering water and sewerage mains and transmission lines. Port Macquarie-Hastings Council manages a sewerage pumping station off Melanie Place (see Map) and a sewerage line which runs adjacent to the High-Low Trail. The vegetation immediately surrounding these facilities is cleared and Council have access to these sites for maintenance. There are also easements for an underground water main which runs in a north–south direction between Lord Street and Roto House, and underground power transmission lines which service the Koala Hospital and Roto House.

6. MANAGEMENT STRATEGIES AND ACTIONS

Current Situation	Desired Outcomes	Management Strategies / Actions	Priority
<p>6.1. Soil and water conservation</p> <p>The natural flow of Wrights Creek has been artificially obstructed. There is a possibility this may cause localised flooding in the catchment, especially during extreme rainfall events.</p> <p>Port Macquarie-Hastings Council is currently seeking funding to prepare a flood study and management plan for Wrights Creek. This study will examine the management of Wrights Creek stormwater, including the area in the reserve.</p> <p>Developments in the catchment are leading to accelerated and increased water discharge.</p> <p>There is a creek reserve, which is not part of the nature reserve, running through the western section of the nature reserve from Savoy Street to Melanie Place. To formalise management actions and jurisdiction, it would be beneficial to include this land as part of the nature reserve.</p> <p>An eroded walking track just off the nature reserve on Council land between Savoy Street and Lord Street crosses the creek and is impacting on water quality.</p>	<p>Soil erosion is minimised.</p> <p>Water quality in Wrights Creek is improved.</p> <p>There is no localised flooding in the catchment.</p> <p>The nature reserve boundary is extended to include the creek reserve.</p>	<p>6.1.1 Wrights Creek and its western branch will be managed to maximise environmental benefit within Wrights Creek and its subcatchment.</p> <p>6.1.2 Advise Port Macquarie-Hastings Council that NPWS wishes Wrights Creek to be managed as far as possible as a natural system, so that it can be taken into account during the proposed flood study of Wrights Creek.</p> <p>6.1.3 Liaise with Port Macquarie-Hastings Council to ensure new developments in the catchment have measures in place to reduce accelerated water flow into Wrights Creek.</p> <p>6.1.4 Pursue options to dedicate the creek reserve as an addition to the nature reserve.</p> <p>6.1.5 Consult with Port Macquarie-Hastings Council about upgrading the walking track that leads from Savoy Street to Lord Street.</p>	<p>High</p> <p>High</p> <p>Medium</p> <p>Medium</p> <p>Medium</p>

Current Situation	Desired Outcomes	Management Strategies / Actions	Priority
<p>6.2. Native plants</p> <p>The nature reserve is dominated by sclerophyll woodland with species such as swamp mahogany, tallowwood and blackbutt. There are sections of rainforest, mainly in the west of the nature reserve. Along Wrights Creek there is a large swamp dominated by reeds.</p> <p>There are no threatened plant species recorded in the nature reserve or historic site, though <i>Senna acclinis</i> has been recorded in the vicinity and it may be present in the nature reserve.</p> <p>In keeping with the original setting of Roto House, the vegetation around Roto and the Koala Hospital is maintained as open woodland with grassed areas.</p> <p>There are some Australian plants not native to the area plus exotic non-Australian plantings around Roto House and the Koala Hospital. A large cleared area east of Roto House was revegetated with eucalypt species, such as swamp mahogany, in the early 1970s to provide koala food.</p> <p>Other sections of the nature reserve have also been revegetated, including areas along the High-Low Walking Track and near Chalmers Street.</p>	<p>Native plant species and communities are conserved.</p> <p>Improved knowledge on native plants and their habitat requirements.</p> <p>Retention of key habitat and corridors in the vicinity of the nature reserve that link to other remnant areas.</p> <p>Maintain heritage landscape aesthetics surrounding Roto House.</p>	<p>6.2.1 Conserve and rehabilitate the native vegetation communities, with particular emphasis on encouraging the regeneration of grassland areas in the nature reserve.</p> <p>6.2.2 Undertake vegetation surveys for predicted threatened plant species, in particular <i>Senna acclinis</i>.</p> <p>6.2.3 Support the establishment of volunteer bush regeneration programs in the nature reserve.</p> <p>6.2.4 Liaise with neighbours and other authorities to encourage conservation of remnant native vegetation in the vicinity of the nature reserve.</p> <p>6.2.5 Maintain the open woodland and grassed area around Roto House.</p>	<p>High</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>High</p>

Current Situation	Desired Outcomes	Management Strategies / Actions	Priority
<p>6.3. Native animals</p> <p>Threatened species recorded in the planning area include the koala, barred cuckoo-strike, square-tailed kite and the grey-headed flying fox.</p> <p>The planning area is part of a major habitat and corridor for koalas in Port Macquarie.</p> <p>A survey of birds was undertaken in 1993 and 58 bird species were recorded. In 2003 and 2004, a pair of square-tailed kites nested in the nature reserve. It is considered unusual for this bird to nest so close to neighbouring urban areas.</p> <p>Other species that may occur in the nature reserve include the osprey and the brush-tailed phascogale.</p>	<p>Native animal species are conserved.</p> <p>There is greater understanding of species diversity, and distribution and ecological requirements.</p>	<p>6.3.1 Undertake surveys for predicted threatened animal species.</p> <p>6.3.2 Implement relevant strategies in priorities action statement and recovery plans for threatened species.</p> <p>6.3.3 Encourage neighbours to plant native species suitable for wildlife.</p> <p>6.3.4 Undertake education campaigns about the planning area that provide the following information:</p> <ul style="list-style-type: none"> • threats to native wildlife, especially from humans and domestic animals; • promote the planning area as a major habitat and corridor for the koala; • conservation issues and the importance of the historic site as a major site for the rescue and rehabilitation of the koala; and • encourage conservation of remnant vegetation in the vicinity of the nature reserve to strengthen the connection of wildlife corridors. 	<p>Medium</p> <p>High</p> <p>Low</p> <p>Medium</p>
<p>6.4. Aboriginal Heritage</p> <p>The planning area is within the Birpai Local Aboriginal Land Council area. The planning area would have historically provided the Aboriginal people with a variety of foods, medicines, shelter and utensils.</p> <p>There are no known recorded Aboriginal sites in the planning area.</p>	<p>Aboriginal people are involved in management of the Aboriginal cultural values in the planning area.</p> <p>Understanding of the cultural values of the</p>	<p>6.4.1 Consult and involve the Birpai Local Aboriginal Land Council and the Birpai people in the management of Aboriginal sites, places and values, including interpretation of places or values.</p> <p>6.4.2 Encourage research into the Aboriginal heritage values of the planning area in consultation with the Birpai Local Aboriginal Land Council and the Birpai people.</p>	<p>High</p> <p>Medium</p>

Current Situation	Desired Outcomes	Management Strategies / Actions	Priority
<p>6.5. Historic Heritage</p> <p>Roto House is the cultural centrepiece of the historic site. It was built for John Flynn in c.1890-91 and was subsequently occupied by three generations of the Flynn family. The house has functioned as a visitor interpretation centre and 'house museum' since 1996, staffed by volunteers under the management of NPWS.</p> <p>Interpretation of Roto House currently includes six reconstructed room settings, guided tours, information panels and showcases exhibiting Flynn artefacts and historic documents. Much of the furniture displayed does not belong to the house, but further 'Flynn' objects are continually being sourced and are either donated or on-loan to Roto House.</p> <p>There are other sites in the historic site listed on the NPWS Historic Heritage Register including the orchard, vineyard, stables and the grave of Mary Flynn. The house's former tennis court and outbuildings have potential for archaeological deposits of local site-specific significance.</p> <p>A Conservation Management Plan (CMP) and an Interpretation and Collections Management Plan have been prepared for Roto House. The CMP outlines works required to maintain the fabric of the house and recommended</p>	<p>planning area is improved.</p> <p>Cultural values are identified, recorded and appropriately conserved and managed.</p> <p>The community and other relevant persons are involved in the consultation and preservation of cultural heritage sites and information.</p> <p>The adaptive reuse of Roto House provides income to meet costs associated with maintenance of the house and its immediate surroundings, and encourages appropriate visitor use.</p>	<p>6.5.1 Manage the fabric, furnishings and cutlilage of Roto House in accordance with the Conservation Management Plan and the Interpretation and Collections Management Plan.</p> <p>6.5.2 Continue to support the Roto volunteers in the interpretation of Roto House and its associated history (see Visitor Use).</p> <p>6.5.3 Promote the historical value of the protection of koala habitat in establishing the nature reserve.</p> <p>6.5.4 Encourage the conservation of any future items that may be recovered and identified as belonging to the original Roto House and associated property in accordance with the Interpretation and Collections Management Plan.</p> <p>6.5.5 Keep a record of all historic and new plantings in accordance with the CMP.</p> <p>6.5.6 Support archaeological investigations to identify and record the sites of other buildings in the grounds of Roto House, provided that such investigations do not permanently disturb the fabric of the house or the vista of the curtilage.</p> <p>6.5.7 Ensure any works proposed for the planning area (including the koala hospital) do not impact on historic or archaeological resources, are sympathetic to the style of Roto House and do not interrupt key views or significant view corridors.</p>	<p>High</p> <p>High</p> <p>Medium</p> <p>High</p> <p>Medium</p> <p>Medium</p> <p>High</p>

Current Situation	Desired Outcomes	Management Strategies / Actions	Priority
<p>adaptive reuse of the house to provide income to meet the costs associated with maintenance of the house and to encourage more visitor use.</p> <p>A Feasibility Study and Business Plan for Roto House has been prepared which supports the adaptive reuse of part of Roto House for a 40-60 seat café with the remainder being used as an interpretation and visitor centre. The study also identifies a number of other complementary opportunities for Roto House and surrounds.</p>		<p>6.5.8 Pursue a lease for adaptive reuse of part of Roto House for a 40-60 seat café, with the remainder being used as an interpretation and visitor centre in line with the Roto House Feasibility Study and Business Plan.</p>	High
<p>6.6. Visitor Opportunities and Education</p> <p>The historic site is a popular destination for tourists, school groups and the local community. Annually, approximately 80,000 - 120,000 people visit the Koala Hospital and 13,000 people visit Roto House. It is assumed that most visitors are visiting the Koala Hospital as the key attractor to the site and opportunistically visit Roto House as a secondary destination.</p> <p>Roto House is open seven days a week as a house museum staffed by volunteers.</p> <p>Visitor facilities planning area include car parking, toilets, signage and interpretation, open space and recreation areas, an educational room at the Koala Hospital, and the Roto Track and High-Low Trail which are regularly used by walkers and bicycle riders.</p>	<p>The planning area provides opportunities for day visitor use that is nature based with minimal impact on natural and cultural heritage values.</p> <p>Walking tracks and facilities are maintained to a suitable standard and provide opportunities not available elsewhere in the area.</p> <p>The community is</p>	<p>6.6.1 Continue to support the Roto volunteers in the interpretation of Roto House and its associated history.</p> <p>6.6.2 Pursue a lease for the adaptive reuse of part of Roto House for a 40-60 seat café with the remainder being used as an interpretation and visitor centre in line with the Roto House Feasibility Study and Business Plan.</p> <p>6.6.3 Convert the existing kitchen and office into a commercial kitchen, the former laundry to staff amenities, and the existing bathroom to a cool room and dry store.</p> <p>6.6.4 Provide seating in the former dining room, with informal seating in the former lounge, and outdoor seating around the veranda and on a new timber deck to the south of the house.</p>	<p>High</p> <p>High</p> <p>High</p> <p>High</p>

Current Situation	Desired Outcomes	Management Strategies / Actions	Priority
<p>The existing car park does not cater for the number of vehicles visiting the historic site or for bus parking and turning. As a result cars and buses are parking on Lord Street which poses a safety issue. The Roto House Feasibility Study and Business Plan includes a 'Concept Plan' to address these issues including a new car park for 30 cars with 2 accessible spaces, a bus parking and turning area and walking tracks leading to Roto House and the Koala Hospital (see Map).</p>	<p>educated on the significance of the planning area and why domestic pets are not permitted.</p> <p>Pedestrian/bicycle access from Little Owen Street is safe.</p> <p>Safe and adequate car parking is provided for visitors and buses in the historic site, together with appropriate walking tracks leading to Roto House and the Koala Hospital.</p>	<p>6.6.5 Establish a new picnic area to the east of Roto House with picnic tables for public use. Maintain a level area west of the house, suitable for the erection of a marquee. Suitable surface hardening (e.g. paving) may be undertaken in these areas subject to levels and impacts of use.</p>	Medium
<p>Pedestrian/bicycle access to Roto Track from Little Owen Street is restricted by a narrow road, culvert and trees, causing conflict with vehicles.</p>		<p>6.6.6 Interpret the history of Roto House and the Flynn family in the two front rooms of Roto House. Leave the three rooms on the eastern side of the house as is initially, with the option of flexible display in the future. Allow one of these rooms to house lockers for volunteers, and NPWS information.</p>	Medium
<p>Port Macquarie-Hastings Council has proposed that either Roto Track and/or High-Low Trail be designated as part of a formal bicycle network.</p>		<p>6.6.7 Encourage complementary opportunities for Roto House and surrounds in keeping with the cultural significance of the place.</p>	Medium
<p>The Feasibility Study and Business Plan for Roto House supports the adaptive reuse of part of Roto House for a 40-60 seat café with the remainder being used as an interpretation and visitor centre. The report also recommends that interpretation of the history of Roto House and the Flynn family be contained in the two front rooms, with the remaining three rooms to remain as is initially, with the option of flexible display in the future. A number of other complementary opportunities for Roto House and surrounds have also been identified in the report.</p>		<p>6.6.8 Realign and extend Roto Track to Little Owen Street (away from the access road), in order to remove conflicts between pedestrians, bicycles and vehicles.</p> <p>6.6.9 Construct new car park, bus parking and turning circle, and walking tracks from the car park to Roto House and the Koala Hospital (see Map).</p> <p>6.6.10 Undertake an environmental assessment to determine whether Roto Track and/or High-Low Trail should be designated as part of a formal bicycle network. If considered appropriate and acceptable, liaise with Council in regard to conditions for construction and management of the trail.</p>	High

Current Situation	Desired Outcomes	Management Strategies / Actions	Priority
<p>6.7. Introduced Plants</p> <p>The planning area is vulnerable to ongoing weed infestations due to its location in an urban environment. Weed species of major concern are bitou bush, lantana, camphor laurel, cassia and ochra. Bitou bush and crofton weed are listed as noxious weeds in the Port Macquarie-Hastings LGA. A draft pest management strategy has been prepared for the planning area, which outlines priorities, control methods, and bush regeneration techniques for introduced plants recorded in the planning area.</p> <p>Bush regeneration and weed control have been undertaken regularly in the planning area by local bush regenerators.</p>	<p>Introduced plants are controlled and where possible eradicated.</p> <p>Increased community and neighbour involvement in pest management programs.</p>	<p>6.7.1 Finalise draft pest management strategy and control introduced plants in accordance with this strategy.</p> <p>6.7.2 Continue to support volunteers and bush regenerators in weed control and bush regeneration activities in the planning area.</p> <p>6.7.3 Encourage a cooperative approach to weed management with neighbouring landholders.</p>	<p>High</p> <p>High</p> <p>Medium</p>
<p>6.8. Pest Animals</p> <p>Foxes and feral cats are considered the main priorities for management of pest animals in the planning area.</p> <p>Two sightings of feral deer have been recorded in the planning area, though this is considered rare and they have not been sighted since.</p> <p>Two introduced fish species, koi carp and gambusia, were identified in Wrights Creek during a survey in 2004.</p>	<p>Pest animals are controlled and where possible eliminated.</p>	<p>6.8.1 Finalise draft pest management strategy and control introduced animals in accordance with this strategy.</p> <p>6.8.2 Monitor the planning area for presence/absence of deer and implement control programs.</p> <p>6.8.3 Liaise with Industry and Investment NSW to monitor Wrights Creek periodically for introduced fish species and implement control programs.</p>	<p>High</p> <p>Medium</p> <p>Medium</p>

<p>6.9. Fire Management</p> <p>Wildfire is not considered to be a significant threat to the planning area, due to the moist sclerophyll and rainforest vegetation, and fire advantages such as Wrights Creek and the surrounding roads and fire breaks.</p> <p>The nature reserve is to be managed primarily as a Land Management Zone (LMZ) and the historic site will be managed primarily as an Asset Protection Zone (APZ).</p> <p>Fuel management will be chiefly undertaken by hand and mechanical techniques such as mowing and slashing.</p> <p>Vehicles are occasionally seen parked at the entrance to Melanie Trail off Lord Street which blocks management vehicle access.</p> <p>NPWS maintains fire breaks on the far western side of the nature reserve, at the back of the houses near Lord Street and off Melanie Place. The remainder of the planning area is protected by adjoining fire advantages including roads, firebreaks on neighbouring properties, and power line clearings.</p>	<p>Life, property and natural and cultural values are protected from fire.</p> <p>Fire frequencies are appropriate for conservation of native plant and animal communities.</p> <p>Fire breaks are regularly maintained.</p>	<p>6.9.1 Manage the majority of the nature reserve as a LMZ (refer section 4.3).</p> <p>6.9.2 Undertake fuel management in the nature reserve and historic site using primarily hand and mechanical techniques.</p> <p>6.9.3 Maintain the grassed area in the historic site, and perimeter fire breaks, by regular slashing and mowing.</p> <p>6.9.4 Install a sign at the entrance to Melanie Trail off Lord Street indicating that parking is not permitted in that location.</p> <p>6.9.5 Consult with neighbours and Port Macquarie-Hastings Council to ensure fire breaks adjoining the nature reserve are regularly maintained by slashing or mowing.</p>	<p>High</p> <p>High</p> <p>High</p> <p>Medium</p> <p>High</p>
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<p>6.10. Isolation and fragmentation</p> <p>The area surrounding the planning area has been extensively cleared for urban development, resulting in a high loss of biodiversity and fragmentation of habitat in the region.</p>	<p>Nearby vegetated areas are protected and enhanced to facilitate wildlife corridors between the planning area and other forested areas.</p>	<p>6.10.1 Liaise with neighbours and other authorities to encourage conservation of remnant native vegetation in the vicinity of the planning area.</p>	<p>High</p>
<p>6.11. Growth in residential development</p> <p>Increased traffic on Lord Street is likely to be restricting the movement of wildlife to and from the planning area.</p> <p>Lord Street poses a risk to visitor safety.</p>	<p>Wildlife road kills are reduced on Lord Street.</p> <p>Risks to visitor safety are reduced and/or eliminated.</p>	<p>6.11.1 Liaise with the Roads and Traffic Authority to install wildlife crossing signs on Lord Street.</p> <p>6.11.2 Undertake education programs to highlight wildlife crossing areas in the vicinity of the planning area.</p> <p>6.11.3 Liaise with Port-Macquarie Hastings Council to address pedestrian safety issues along Lord Street.</p>	<p>Medium</p> <p>Medium</p> <p>Medium</p>

<p>6.12. Inappropriate uses</p> <p>The planning area is exposed to a range of urban interface issues such as littering and dumping of refuse, the proliferation of informal tracks by walkers and bicycle riders, and damage to vegetation.</p> <p>Domestic pets are often sighted and people are regularly seen walking dogs through the reserve.</p>	<p>Informal tracks are closed and rehabilitated.</p> <p>The occurrence of dogs being walked and garden refuse being dumped in the planning area is reduced.</p>	<p>6.12.1 Close and rehabilitate informal tracks within the planning area.</p> <p>6.12.2 Install signage to explain the negative impacts of informal tracks and requesting visitors to stay on formed tracks.</p> <p>6.12.3 Undertake education program and install signage to explain the negative impacts of dogs and dumping garden refuse in the planning area.</p>	<p>High</p> <p>Medium</p> <p>Medium</p>
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<p>6.13. Non NPWS uses</p> <p>The Koala Hospital is operated by the Koala Preservation Society (KPS) under a peppercorn lease. The KPS is required to follow a Deed of Lease.</p> <p>The KPS must adhere to their licence to rehabilitate and release sick, injured and orphaned koalas. The KPS also require a licence under the <i>Exhibited Animals Protection Act 1986</i> (EAP Act), and need to observe standards set under that licence. The EAP Act is administered by Industry and Investment NSW.</p> <p>There are a number of easements over the planning area covering water and sewerage mains, and transmission lines.</p>	<p>The KPS obtain written consent from the NPWS Regional Manager for any works within the planning area.</p> <p>The KPS comply with the guidelines and requirements of the NPWS Rehabilitation of Fauna Policy, and any directives from NPWS authorised officers.</p> <p>NPWS is consulted about the maintenance of non-NPWS structures in the planning area.</p>	<p>6.13.1 Liaise with the KPS to ensure that any proposed works within the historic site are approved by the NPWS Regional Manager. Any new buildings or extensions to buildings (including within the lease area) not covered in this plan will require an amendment to the plan unless they are modifications to existing structures required to meet licence standards set under the EAP Act related to the welfare of the animals.</p> <p>6.13.2 Liaise with the KPS to ensure compliance with the requirements of the NPWS Rehabilitation of Fauna Policy.</p> <p>6.13.3 Liaise with Port Macquarie-Hastings Council to ensure NPWS is consulted regarding maintenance of Council infrastructure in the planning area.</p>	<p>High</p> <p>Medium</p> <p>Medium</p>
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High priority activities are those imperative to achievement of the objectives and desired outcomes. They must be undertaken in the near future to avoid significant deterioration in natural, cultural or management resources.

Medium priority activities are those that are necessary to achieve the objectives and desired outcomes but are not urgent.

Low priority activities are desirable to achieve management objectives and desired outcomes but can wait until resources become available.

7. REFERENCES

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