

PLAN OF MANAGEMENT

NO. 10

FOR

NATURAL AREAS

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SECTION 1 - GENERAL

INTRODUCTION - WHY DOES THE PLAN EXIST?

The plan has been prepared by Wyong Shire Council under the provisions of the Local Government Act, 1993 which requires Councils to prepare plans of management for all land under Council ownership or control classified as community land.

The use and management of the community land to which this plan applies is regulated by this plan of management. The Local Government Act, 1993 provides that community land is required to be used and managed in accordance with the plan of management.

The plan of management has been written to outline the ways that the land will be used and the objectives for management. It may be used to determine the allocation of priorities for use of resources and funds.

The procedure for the preparation of plans of management involves public exhibition and consultation processes. The final plan has been adopted by the Council. The plan may be amended by a subsequent plan of management.

This generic plan is one of a number of plans of management for community land in Wyong Shire. Other plans apply to specific areas, and generic plans also apply to land designated as sportsgrounds, parks, playgrounds and general community use and areas of cultural significance. Generic plans generally provide for maintenance or minor developments and activities on the land which are unlikely to result in any significant changes or impacts.

Plans of management are available for public inspection and purchase from the Council.

LAND TO WHICH THE PLAN APPLIES

This plan applies to all community land categorised as natural area within the Wyong Local Government Area, and includes the land identified in Schedule 1.

CATEGORY OF LAND AND DOMINANT USE

For the purposes of the Local Government Act, 1993 the land to which this plan applies is categorised as natural area, and its dominant use is for the protection of the natural values of the land.

Land categorised as a natural area is further categorised as one or more of the following:

- * Bushland
- * Wetland
- * Escarpment
- * Watercourse
- * Foreshore

PLAN OF MANAGEMENT OBJECTIVES

Wyong Shire Council owns many parcels of community land and seeks to ensure that land is managed in a cost effective way to maximise the community benefits of its use.

The core objectives for management of community land categorised as a natural area are as follows:

- * To conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which the land is categorised as a natural area.
- * To maintain the land, or that feature or habitat, in its natural state and setting.
- * To provide for the restoration and regeneration of the land.
- * To provide for community use of and access to the land in such a manner as will minimise and mitigate any disturbance caused by human intrusion.
- * To assist in and facilitate the implementation of any provisions restricting the use and management of the land that are set out in a recovery plan or threat abatement plan prepared under the Threatened Species Conservation Act 1995 or the Fisheries Management Act 1994.

The core objectives for management of community land categorised as bushland are:

- * To ensure the ongoing ecological viability of the land by protecting the ecological biodiversity and habitat values of the land, the flora and fauna (including invertebrates, fungi and micro-organisms) of the land and other ecological values of the land.
- * To protect the aesthetic, heritage, recreational, educational and scientific values of the land.
- * To promote the management of the land in a manner that protects and enhances the values and quality of the land and facilitates public enjoyment of the land, and to implement measures directed to minimising or mitigating any disturbance caused by human intrusion.
- * To restore degraded bushland.
- * To protect existing landforms such as natural drainage lines, watercourses and foreshores.
- * To retain bushland in parcels of a size and configuration that will enable the existing plant and animal communities to survive in the long term.
- * To protect bushland as a natural stabiliser of the soil surface.

The core objectives for management of community land categorised as wetland are:

- * To protect the biodiversity and ecological values of wetlands, with particular reference to their hydrological environment (including water quality and water flow), and to the flora, fauna and habitat values of the wetlands.
- * To restore and regenerate degraded wetlands.
- * To facilitate community education in relation to wetlands, and the community use of wetlands, without compromising the ecological values of wetlands.

The core objectives for management of community land categorised as foreshore are:

- * To maintain the foreshore as a transition area between the aquatic and the terrestrial environment and to protect and enhance all functions associated with the foreshores role as a transition area.
- * To facilitate the ecologically sustainable use of the foreshore and to mitigate impact on the foreshore by community use.

The general objectives of the plan are:

- * To ensure that the Act is complied with in relation to preparation of Plans of Management.
- * To inform Council staff and the community of the way the land will be managed.
- * To progressively improve the values of the land and to minimise the long term cost of maintenance to Council.
- * To make provision for leases, licences and agreements in respect of the land.
- * To identify and recognise existing uses and improvements on the land.
- * To provide a reference and data bank in relation to information relevant to present and future management of the land.
- * To set in place an administrative structure to ensure the achievement of land management objectives.
- * To identify the major management issues applying to the land.
- * To simplify the process of management as far as possible.

PLANNING CONTROLS APPLYING

The land to which this plan applies is subject to the provisions of Wyong Local Environmental Plan 1991. The objective of the local environmental plan for the natural areas referred to in this plan is environmental protection. Development consent under the Environmental Planning and Assessment Act, 1979 is required for development under the provisions of the Wyong Local Environmental Plan 1991.

State Environmental Planning Policy No 14 - Coastal Wetlands applies to some of the land to which the plan of management applies, and requires development consent for certain activities.

State Environmental Planning Policy No 44 - Koala Habitat Protection applies to the land and, requires consideration of potential koala habitat in the determination of development applications.

State Environmental Planning Policy No 46 - Protection and Management of Native Vegetation applies to the land, and requires development consent from the Department of Land and Water Conservation for clearing of native vegetation.

Development control plans may also apply to the land.

MANAGEMENT AUTHORITY

For the purposes of this plan, the management authority is Wyong Shire Council.

The Council's responsibilities for management of land may be delegated to and undertaken by a Section 355 Committee, trusteeship, or other authorised persons or organisations. Where the Council's responsibilities have been delegated, the provisions of this management plan continue to apply.

OVERVIEW OF NATURAL AREAS IN WYONG SHIRE

This section presents a brief overview of the natural areas on the land to which the plan applies, and their significance. More details of the natural areas can be found in the references listed at the end of this document.

The natural environments of Wyong Shire can be generally categorised according to the main topographic types which are as follows:

- * Watagan Mountains and Kulnura Plateau.
- * Rivers and valleys of Ourimbah Creek, Wyong River and Jilliby Creek.
- * Coastal Plain.
- * Lakes and Coast.

Most of the significant land to which this plan applies is located along the rivers and valleys, on the coastal plain, and adjacent to the lakes and coast. Much of the land is flood affected.

About 35 distinct vegetation communities (other than wetlands) have been identified within Wyong Shire, a significant proportion of which are found on land to which this plan applies. The vegetation communities are very diverse, and range from rainforests and forests to woodlands and heaths.

Important wetland areas are also located on natural areas within Wyong Shire. About 10 general types of wetlands occur within Wyong, most of which are found on land to which this plan applies, and many of which grade into the other vegetation communities.

The vegetation types are closely related to the geology of the area, which includes alluviums, coastal and estuarine sands, claystones and conglomerates, coal measures, and sandstones. The topography and soils also closely related to the geology.

Significant native plant species are also found in Wyong Shire, and about 30 such species are currently identified. Four of these are identified as threatened and the others are mostly of limited distribution. The total number of native plant species in the area is large but not known.

Overall, the natural ecosystems of the area are very complex and diverse, and are of high conservation significance. These ecosystems also provide extensive areas of fauna habitat. There are currently 31 fauna species identified as threatened, or vulnerable and rare in Wyong Shire. All fauna species in the area are affected by clearing of native vegetation.

The management of the land must take into account the vegetation communities and ecosystems on the land and in the surrounding region, and habitat corridors and vegetation linkages.

Other important values of the land are landscape and amenity value, recreation, environmental education and cultural resources.

NATURAL RESOURCE INFORMATION RELATING TO THE LAND

This section gives a summary of the natural resource information available that relates to the land, and its relevance for management purposes. Important current references are listed at the end of this document.

Wyong Shire Council has extensive records relating to the natural resources of the general area. Most of this work is at the strategic or reconnaissance level and provides useful background information, but is not in sufficient detail for site specific management purposes. For example, vegetation communities for the area have been mapped at a scale of 1:25,000 with some more detailed mapping at 1:4,000. Soils have been mapped at a scale of 1:100,000.

Lists of rare and threatened plants are compiled and updated by the National Parks and Wildlife Service, and the Service also maintains a data base of records of fauna, particularly threatened and rare or endangered fauna.

A list of infrastructure and improvements on the land is maintained by the Council.

As outlined above, the available information is mostly general rather than site specific. As a result, the information can often not be applied at a detailed scale to an individual parcel of land or management problem, since natural ecosystems in the area often are very variable over short distances and form an ever changing pattern which responds to management practices. The existing information is however important to review before activities are undertaken, and gives a guide to important natural features which should be subject to further detailed survey.

Desirably, fauna and flora surveys and lists should be maintained for each plant community on each parcel of land, together with a record of management history, including records of bushfires and works. As far as possible, in the long term, individual site records should be kept with details of the location (preferably latitude and longitude), time of year, date, person undertaking the survey, and the period of survey.

As a general principle, any change to management practices, or any activities to be undertaken should be subject to a review of whether adequate information is available upon which to make an assessment of the environmental impact of the practice or activity. If insufficient information is available, a field survey should be undertaken by a suitably qualified person.

MANAGEMENT ISSUES

1 Types of Management Issues

The management issues to be addressed by the plan can be categorised into three types:

- * Issues relating to the protection of the natural ecosystems on the land and their ability to be self sustaining.
- * Issues relating to activities carried out on the land (primarily recreational and development) and which may adversely affect, or improve the natural ecosystems on the land.
- * Issues related to activities carried out externally to the land (such as on neighbouring properties) and impacting on the land.

2 Summary of Management Issues

The management of the land must take into account the dominant use and the purpose for which the land is classified as community land, and the following specific matters:

- * Vegetation Management
- * Access and Occupation
- * Recreation Activities
- * Fauna
- * Bushfires
- * Development Activities
- * Pollution Control
- * Information, Monitoring and Research
- * Amenities and Infrastructure

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- * Administration
 - * General Issues
 - * Bushland
 - * Wetlands
 - * Lake Foreshores and Estuaries
 - * Coastal Areas

SECTION 2 - MANAGEMENT GUIDELINES

ACCEPTABLE ACTIVITIES

This plan of management authorises the activities as listed below, in cases where the activities do not compromise the identified dominant use of the land as a natural area.

Passive recreational uses are permitted, including bushwalking, photography, etc.

Domestic pets should be discouraged from utilising natural areas. They can only use these areas in accordance with signs erected on the land. In some areas domestic pets are prohibited. In these instances, signs are erected informing the public of this restriction.

Educational and scientific uses are permitted.

Activities interfering with the peace and ecological diversity of natural areas are generally discouraged, unless specific provision has been made for them. Such activities include powered vehicles, other than essential service vehicles; horse riding; hunting; collection of fauna and flora, rocks, soil, timber (alive or dead) and leaf litter; any intensive activities; and clearing of vegetation to preserve views.

Generally, provision for active recreational uses is not made in natural areas. Sportsfields may not be constructed, but active facilities may be used provided that the objectives of this plan are complied with.

GENERAL MANAGEMENT POLICIES AND GUIDELINES

The management policies and guidelines applying to the land are as indicated in this section. The general guidelines apply to all the natural areas but may not apply in all specific situations. Specific guidelines apply for the different types of natural areas occurring in Wyong Shire, namely bushland, wetlands, escarpments, lake foreshores, and coastal areas and estuaries.

Where there are existing uses within the natural areas to which this plan applies, and they are inconsistent with the guidelines outlined in this plan, those existing uses may continue, but may not increase in area or intensity.

For parts of the land that are not in a natural condition and are intensively developed with facilities such as intensive recreation, developed parks, sportsgrounds, or other community activities, the appropriate provisions of the generic plan relating to sportsgrounds, parks, playgrounds and general community use will apply where not inconsistent with the objectives and requirements imposed by this plan.

General management policies and issues are grouped in terms of their general subject. Some matters are subject to additional adopted policies and procedures manuals and these are to apply where appropriate. General management policies and guidelines are as follows:

1 Vegetation Management

The aim of vegetation management is to retain the distribution, abundance and diversity of native species and communities presently existing on the land and where appropriate to regenerate pre-existing natural communities.

A key element of vegetation management is to minimise the area, degree and duration of disturbance to natural vegetation. Another important part of vegetation management is to identify and recognise the important features and significance of the land.

Dominant Species

Management should retain dominant native species and allow natural processes to continue. Natural vegetation communities are self sustaining and change over time according to changes in environmental factors including climate, bushfires, or other disturbance. Communities are generally described in terms of dominant species (especially trees) and may be subject to succession over time.

Vegetation Structure

Vegetation structure is the term to describe the general character of the cover of the tallest stratum of vegetation, including its height, density and form. In Wyong, typical vegetation structures that occur are tall open forest, woodland, and heath. Different management is required for the different structural forms.

Species Inventory

Before any activity with the potential to disturb bushland is carried out on the land, a plant survey will be undertaken to establish an inventory of the species present, and any specific management requirements for particular plants.

Diversity

Diversity refers to the variety of species and vegetation communities present. An objective of management is to retain the diversity of natural areas.

Fire Sensitivity of Plant Species

Different species and plant communities have varying sensitivity to fire and may require varying fire frequencies and intensities for survival. This is to be considered in undertaking any management activities involving the use of fire.

Weeds

For the purpose of vegetation management in natural areas, a weed is regarded as any non indigenous plant.

Weed Control

Weed control refers to control of non indigenous native plants in natural areas. Measures are to be implemented to control and manage existing and future processes leading to weed invasion and sources of weeds which are invasive of natural areas. An important element of weed control is an understanding the causes of weed invasion and taking measures to minimise these causes. Weed control shall be in accordance with any manual that may be adopted by the Council.

Weed Monitoring

Monitoring is to be undertaken to identify and respond to the occurrence of new plant species which pose a potential threat to natural areas.

Weed Control Techniques

Weed control techniques are to minimise negative environmental impacts. Different techniques are required in varying situations, especially along watercourses, which are very sensitive to pollution impacts. An important part of control is the regular monitoring of weeds in natural areas on an ongoing basis.

Weed Invasion

Weed invasion occurs in natural areas mainly as a result of the following factors:

- * Physical disturbance due to construction activity, clearing, or mowing.
- * Increased soil moisture due to runoff.
- * Increased nutrients from runoff or waste dumping.
- * Increased light levels due to clearing or dieback.
- * Increase in weed propagules and seed dispersal agents.

Measures are to be taken to prevent the occurrence of factors leading to weed invasion.

Noxious Weeds

Noxious weeds are declared under the Noxious Weeds Act, 1993 and are plants posing a threat to agriculture, the environment or the community. Noxious weeds are to be removed as soon as possible. There is a legal obligation on land owners and Council to remove these plants from their properties.

Regeneration and Rehabilitation

Where land disturbance occurs, bush regeneration is the preferred method of rehabilitation in accordance with a bushland regeneration plan.

Rare and Threatened Plants

Areas worthy of special protection are to be identified. These include locations of rare plant communities or rare or threatened plants (ROTAP) as recorded by the National Parks and Wildlife Service, and special management measures may be required on such land.

Fauna Habitat

Vegetation management shall have regard to the value of the vegetation as fauna habitat. In particular, old trees (both living and dead) and a diverse vegetation structure maintaining understorey species will be retained to maintain fauna habitat. Fallen logs and bushrock are to be retained and left undisturbed.

Fragmentation of Natural Areas

Measures will be taken to avoid fragmentation of vegetation in natural areas by roads, tracks, services, and the like. As far as possible, natural areas should be retained in contiguous areas as large as possible, with the minimum length of edges.

Vegetation Corridors

As far as possible, vegetation corridors shall be retained to link larger natural areas in order to facilitate movement of native fauna and plants. Vegetation corridors may be planted or regenerated.

Vegetation Removal

Native vegetation is not to be removed from the site. Any non native vegetation removed from the site is to be disposed of away from bushland to avoid spread of seed, or introduction of additional nutrients. Trees may be removed or cut only where they are hazardous to public safety, or where they are a weed or non native species.

Formal Gardens

Formal gardens are not compatible with retention of natural vegetation, and new gardens will not be constructed in natural areas.

Disturbance to Vegetation

Measures will be taken to prevent disturbance to existing vegetation, including roots, water regime, and surrounding soil.

Vegetation along Watercourses

Vegetation and natural hydrological processes shall be retained along watercourses. Any disturbance shall be regenerated with appropriate native species.

Replacement and Planting of Vegetation

Genetic material from local sources will be used for revegetation and restoration work in natural areas as far as possible. Any regeneration and soil stabilisation measures shall use non invasive, local species.

2 Access and Occupation

The plan seeks to ensure that essential pedestrian and vehicular access through or into natural areas minimises the impact on the area. Non-essential pedestrian and vehicular access shall be progressively closed and affected areas restored. Permanent or temporary use of natural areas on community land for access to private lands is in general not supported or permitted.

New Roads

The plan does not authorise the construction of new roads, or existing roads on a substantially new alignment.

Road Maintenance

Existing roads are to be regularly maintained in a safe condition.

Track Construction

Location and construction of tracks shall ensure minimal erosion, vegetation and soil loss, and be constructed of a suitable standard to require minimal maintenance.

Track Maintenance

Tracks are to be inspected at least annually and are to be maintained to ensure they do not become unsafe, or cause land degradation.

Track Closure

The Council may close and rehabilitate non essential tracks, or other roads and tracks that are poorly located and represent an erosion hazard.

Cycleways

Cycleways may be constructed to give access to facilities within natural areas and shall be constructed in accordance with Council's adopted cycleways plan.

Paths and Paving

New paths and paving may be constructed in association with existing facilities, and shall be adequately maintained.

Fences and Fencing

Fences may be constructed to restrict access or to protect sensitive areas. Fences shall be in accordance with any standards or guidelines adopted by the Council. Normally, as provided for in the Dividing Fences Act, boundary fences are the responsibility of adjoining owners to construct and maintain and Council does not contribute to fencing boundaries to private land. Fencing types used shall have regard to the impact on native fauna, and generally barbed wire shall not be used.

Four Wheel Drive Access

Four wheel drive access shall not be provided, except where there has been historical use, and such access is specifically permitted as identified by signs. Inappropriate access may be denied, having regard to the objectives of the plan.

Illegal Access

Unauthorised access is not supported, and where Council is aware of such access, measures will be taken to stop it.

Illegal Occupation

Unauthorised occupation of community land is not supported, and where Council is aware of such occupation, measures will be taken to stop it.

3 Recreation Activities

Recreation activities are encouraged, but are subsidiary to the objective of management of the land to retain its natural features and qualities.

Camping

Overnight camping is not permitted, except where specifically designated. The Council may permit occasional camping outside designated areas in conjunction with specific events. Camping areas are to have adequate arrangements for sewerage and waste disposal.

Caravan Parks

Caravan parks are not a suitable activity within natural areas.

Boat Ramps

Boat ramps will be maintained and may be upgraded, but additional facilities will not be provided.

Bushwalking

Bushwalking is permitted in all natural areas unless specifically prohibited in site specific locations.

Off Road Recreation Vehicles

Off road recreation vehicles are prohibited in all natural areas, except on properly constructed roads, or where used for maintenance or management purposes.

Horse Riding

Horse riding is not permitted except on designated tracks. Horse riding causes damage to tracks and natural areas, spread of weeds and introduction of nutrients. Any designated tracks are not to be located in undisturbed bushland areas, and regular maintenance is required, especially to control track damage and erosion.

Field Sports

Formal playing fields for sports will not be provided, although informal areas may be used for this purpose.

Fishing

Fishing is controlled by State Fisheries and is unaffected by the operation of this plan.

Barbecues

Barbecues may be established only in designated formal picnic areas, and measures shall be taken to prevent bushfire hazards. Such measures shall include a minimum cleared distance between the barbecue and bushland of 20 metres and provision of reticulated water supply on site. Barbecues shall wherever possible not require timber for fuel, unless provision is made for this to be obtained from off the site.

Recreation Equipment

Recreation equipment, including playing facilities, tables, and the like shall be installed and maintained in accordance with accepted standards.

Cycling

Cycling is encouraged on formed and constructed roads and tracks. On informal tracks within natural areas, cycling may cause damage to natural vegetation, or may contribute to soil erosion or track damage and may be restricted or prohibited by the Council.

Public Entertainment

Public entertainment may only be carried out with the prior consent of the Council and where it is satisfied that no public nuisance will occur.

Recreational Activities

Within natural areas, the Council may restrict any recreational activity to specific areas, times, or seasons where this is necessary to achieve the objectives of the plan.

4 Fauna

Native fauna populations and habitats shall be protected, maintained and enhanced. The impacts on wildlife and habitat shall be taken into consideration whenever any management activity is proposed (such as bushland regeneration, weed control, bushfire hazard reduction, recreation activities, etc.)

Threatened Fauna

Threatened native fauna utilise natural areas to which the plan applies. Any activities undertaken on the land shall be carried out in a manner that ensures that such animals are not adversely affected by the activity.

Other Native Fauna

The Council shall take into account the presence of any native fauna in the management of the land.

Re-Introduction and Release of Native Fauna

Release of native fauna will only be permitted where it is reasonably likely that the land on which the animal is to be released forms part of its expected home range.

Fauna Surveys

Fauna surveys shall be undertaken prior to any significant development works likely to affect the habitat of any native fauna.

Introduced Fauna

Control of feral animals (foxes, wild dogs, feral cats, etc.) will be undertaken within natural areas.

Domestic Animals

The use of natural areas for exercising or training of domestic animals (eg. horses, dogs, cats, etc.) is an activity which is incompatible with the protection and management of native fauna and habitat. Domestic animals are prohibited.

Grazing

Non native grazing animals (such as cattle and sheep) shall not occupy the land and are contrary to the objectives of the plan.

5 Bushfires

Management aims to take measures to prevent damage to life and property from bushfires and to ensure that, as far as possible, bushfire management is compatible with the other objectives of this plan of management.

Bushfire Hazard Reduction

Shall be undertaken where there is an identified high hazard to improvements on the land or on surrounding land. As far as possible, bushfire hazard reduction shall be by mechanical means and will be undertaken along property boundaries. Hazard reduction programs are to include an adequate environmental assessment and will be implemented in a manner which protects the biological diversity.

Bushfire Management Plans

Where appropriate, specific parcels of community land will have a fire management plan prepared and adopted.

Broad Scale Hazard Reduction Burns

Hazard reduction burns should be conducted in a manner that retains patches of unburnt vegetation.

Fire Trails

Existing fire trails are to be maintained in good condition, or shall be closed and rehabilitated where no longer required. No new trails are to be constructed.

Monitoring

Periodic weed monitoring and control will be undertaken after bushfires and hazard reduction burning.

Emergencies

This plan authorises any necessary activities to be carried out during declared bushfire emergencies. Following the carrying out of any works, periodic monitoring will be undertaken, and rehabilitation works undertaken if necessary.

6 Development Activities

Development activities shall be undertaken in a way that minimises the area, degree and duration of disturbance, and areas are to be restored to greatest extent practicable. On site resources (topsoil, vegetation, etc.) shall be used to the maximum possible extent.

The plan does not authorise new development works except under certain conditions, and provided any necessary approvals have been obtained.

Construction Works

Progressive site stabilisation and restoration shall be undertaken during the construction process.

Soil Compaction

Measures shall be taken to minimise the compaction of soil by heavy machinery. Where compaction occurs it will be relieved on completion of the activity.

Stockpiling of Materials

Works are to be completed in stages (clearing, topsoil stripping, relocation of topsoil, mulching, planting, etc.) and shall follow the principle of isolating stockpiles of different materials to prevent contamination. Materials and soil may be stockpiled but only on a temporary basis, and provided that measures are taken to prevent adverse affects such as soil erosion, introduction of weed species, soil compaction, and the like. Stockpiles are to be more than 5 metres from trees.

Development Adjacent to Community Land

Development works along boundaries and adjacent to the land to which this plan applies shall take into account the guidelines outlined in this section.

Clearing

There shall be no further clearing of bushland on the land without prior approval of the Council.

Filling

As far as possible, there shall be no introduced fill from off the site. On site soil material shall only be used where it has no weed content. Excess material from construction works will be removed from the site and not spread on the site. Introduced fill shall be subject to chemical analysis and must be certified weed free.

Restoration

Following construction, all areas immediately adjoining natural areas shall be restored, as far as possible reinstating the plant species, structure and dynamics of the pre existing indigenous plant communities. Strategies should be adopted which maximise the natural recovery of those plant communities. Restoration shall ensure that weed invasion of nearby natural areas is minimised and shall include ongoing maintenance of restoration measures.

Draining

Drainage works shall only be undertaken where these do not adversely affect the natural drainage patterns on the land, and where the works are essential to protect roads, services, buildings or other improvements on the land.

Earthworks

Earthworks shall be minimised as far as possible, and are to be undertaken in a manner to ensure that the necessity for rehabilitation is minimised.

Nutrients Leached from Building Materials

Materials (including concrete, gravel, topsoil, etc.) shall be stockpiled in such a way as to prevent nutrients from leaching into watercourses or into groundwater systems. As far as possible, materials low in nutrients are to be used.

Protection of Trees

Measures are to be taken to prevent damage and disturbance to tree roots by cutting of roots, loss of water, soil compaction or build up of soil.

Development Adjoining Natural Areas

As far as possible development adjoining natural areas shall retain natural areas on adjoining private land, and appropriate conditions of consent shall be imposed to prevent adverse impacts on natural areas.

New Development Works

New development works (such as construction of roads, parking areas, cycleways, etc.) are not authorised by this plan, except where the works are consistent with the objectives of this plan, and are identified in an adopted master plan for the parcel of land on which the works are proposed, and where any necessary approvals have been obtained under the Environmental Planning and Assessment Act 1979 or the Local Government Act 1993.

7 Pollution Control

Pollution is a major factor in weed invasion and in the degradation of natural areas. Management should seek to ensure that no pollution is generated on the land, and that adequate measures are taken to prevent adverse impacts from adjoining land.

Soil Erosion and Sedimentation

All activities are to ensure adequate controls to prevent soil erosion and sedimentation in accordance with Council's existing guidelines and are to be inspected periodically. This is particularly important during any construction works, and in the maintenance of roads and tracks.

Nutrients

Measures will be taken to minimise and to control nutrients entering watercourses, water bodies or groundwater.

Environment Protection (noise control, dust, chemicals, etc.)

Measures will be taken during any construction or maintenance works on the land to ensure that normal environmental protection, pollution control and health guidelines are complied with.

Drainage, Runoff and Stormwater

Water quality entering natural areas is to be maintained at a level which is acceptable for sustainable natural area management, as far as possible to maintain pre development conditions. Additional runoff is not to discharge into bushland areas. Special design requirements apply for pipe discharges into bushland including measures to ensure dissipation of stormwater velocity. Permeable ground surfaces are to be maintained as far as possible and on site disposal of stormwater should occur.

Litter

Litter shall be regularly collected and removed. Litter bins shall only be provided adjacent to amenities in natural areas. It is the responsibility of all users to ensure that areas are left in a tidy manner after use.

Rubbish Dumping (including garden waste)

Rubbish dumping is not permitted. Any lawn clippings are to be disposed of off site or in a manner that does not affect natural vegetation, or encourage the spread of weeds.

Irrigation

Irrigation is to be minimised on any lawns or mowed areas to avoid runoff and a raised water table.

Watercourses

Natural hydrological processes are to be maintained where possible, including natural vegetation and the flow regimes to maintain creek line stability and health of terrestrial and aquatic plant communities.

Acid Sulphate Soils

Disturbance to acid sulphate soils causes degradation of lowland environments and estuarine water quality. These are soils with layers rich in iron sulphides which oxidise to sulphuric acid when these previously waterlogged soils are drained or excavated. They are generally associated with estuarine swamps, and should preferably be left undisturbed.

8 Information, Monitoring and Research

An important part of the management process is to regularly document and update information relating to land to which the plan applies, and to monitor changes.

Educational and scientific use of natural areas is encouraged.

Visitor Monitoring and Research

Measures should be instituted to assess usage of areas by visitors.

Environmental Information

A data base of environmental information of relevance for management should be established and maintained. Key components would include information on the presence of plant and fauna species, plant communities, bushfire history and weeds.

Education

Education and interpretative facilities may be provided in natural areas.

Use of Areas by Educational and Scientific Institutions

The plan allows and seeks to promote use for educational and scientific purposes, especially filling in data gaps. Educational institutions are to advise Council of their activities and of the results of any research undertaken.

Environmental Monitoring

Periodic environmental monitoring of important environmental indicators is desirable to establish changes or trends, and should be undertaken, especially in relation to water quality.

9 Amenities and Infrastructure

Amenities and facilities may be provided where consistent with the need to facilitate public enjoyment of the natural area compatible with its conservation. Generally, provision of facilities in sensitive natural areas will be limited. Amenities and infrastructure are to be maintained to the highest possible standard.

A generic plan of management for sportsgrounds, parks, playgrounds and general community use specifically deals with the management of developed areas including amenities, playing fields and the like. Some portions of land classified as natural areas include intensively developed areas, and where appropriate, the specific provisions of the generic plan for sportsgrounds, parks, playgrounds and general community use may be applied in such portions, where not inconsistent with the overall intent and objectives of this plan.

Removal of Unsafe, Dead Trees

Unsafe, diseased or dying trees immediately adjacent to facilities, buildings or high use public areas may be removed, and may be replaced in accordance with any adopted Council manual or policy.

Lighting

Lighting shall not be provided in natural areas, except where required for public safety and the protection of assets.

Services and Utilities

Services and utilities (such as water supply, reservoirs, sewerage, electricity supply, and telecommunications) may be constructed, maintained or repaired on the land, provided that the other guidelines of this plan are complied with.

Community Uses and Buildings (eg. Canoe storage, clubs)

Community uses are permitted in and adjacent to existing buildings. New development is subject to other provisions of this plan.

Signs

Signs may be erected on the land in accordance with the Council's Sign Code.

Recreation Facilities

Facilities specifically for active recreation purposes will not be provided in natural areas. Passive recreation facilities consistent with the objectives of this plan may be provided, subject to the other provisions of the plan.

Observation and Lookout Points

Lookouts may be established provided they are not visually obtrusive, and are constructed and maintained in a manner such as to ensure public safety.

10 Administration

Administrative issues have an important influence on the way in which the land is managed.

Staff Resources

The Council shall seek to provide adequate staff resources for the management of the land in accordance with this plan. Staff shall have appropriate qualifications and/or experience.

Environmental Impact Assessment of Activities

The environmental impact of activities carried out on the land will be assessed having regard to the requirements under Part V of the Environmental Planning and Assessment Act 1979.

Role of Other Authorities (eg. Dept Land and Water Conservation)

Other government authorities may have responsibilities or involvement in the management of the land or of immediately adjacent land. This will be taken into account, and where appropriate, consultation will take place with relevant authorities.

Activities Carried Out by Other Authorities

Where activities are carried out on the land by other authorities, the Council will make such authorities aware of the provisions of this plan and as far as possible shall seek to ensure that any activities are compatible with the objectives and guidelines of this plan.

Community Involvement in Management

Where appropriate, the Council may undertake community consultation subsequent to the making of this plan and may give community groups a role in management.

Contract and Volunteer Labour

In managing the land the Council may use contract and volunteer labour but shall ensure that supervisors have appropriate qualifications and experience, and are made aware of the requirements of this plan.

Delegation of Management Responsibilities

Where management responsibilities are delegated by the Council a requirement of the delegation shall be that the provisions of this plan of management are complied with.

Leasing

The plan authorises the Council to lease land to which this plan applies for a purpose for which the land was being used at the date of commencement of the plan, or for any other purpose which is specifically allowed under the terms of this management plan. Any leases are to be in accordance with the provisions of the Local Government Act.

Easements

The Council may grant easements for the provision of services over, or on land to which this plan applies where these are unlikely to adversely affect bushland on the land.

11 General Issues*Landscape Design*

In any works being undertaken, the Council will seek to ensure a high standard of landscape design.

Maintenance

Existing assets on the land shall be identified and measures taken to maintain them in a satisfactory manner. The Council may make arrangements for community groups to undertake maintenance for specific facilities on the Council's behalf.

Temporary Uses

The Council may allow temporary use of any of the land to which this plan applies up to a maximum continuous period of one month in any calendar year, provided it is satisfied that the use does not significantly adversely affect the permanent uses of the land and conforms to the objectives of this plan. In allowing such a temporary use, the Council will have regard to the environmental impact of the use, as provided for in the Environmental Planning and Assessment Act, 1979.

Public Access

Public access can be denied to assist rehabilitation or protection of special items of significance or where a lease has been granted, but shall not otherwise be denied.

Adjoining Developments

Council will take into account the effect of development and management activities carried out on adjoining land. Activities of concern include discharge of stormwater, clearing and unauthorised filling. As far as possible, adjoining developments should seek to provide for buffer zones on private land adjoining natural areas and joint boundary management programs with adjacent landholders.

Energy Efficiency

Measures shall be taken to improve the energy efficiency of all buildings and activities carried out on the land to which this plan applies. Measures shall include use of energy efficient lighting, periodic auditing of energy use, and appropriate orientation of any new buildings to incorporate passive solar design principles.

Neighbours

The Council shall endeavour to be a good neighbour, and as far as possible shall consult with adjoining owners in respect of management activities which may affect them.

Public Liability

The Council will maintain public liability insurance for the land to which the plan applies.

Public Safety

Reasonable measures will be taken by the Council to ensure and maintain the public safety of persons using the land.

Commercial Activities (eg. selling food and drinks)

Commercial activities may be carried out on the land to which this plan applies, provided that such use is ancillary to the use of land for a purpose authorised under this plan, and subject to prior Council consent.

Emergencies

This plan authorises any necessary activities to be carried out during declared emergencies as may be decided by the General Manager. Following the carrying out of any activities, periodic monitoring will be undertaken, and rehabilitation works undertaken if necessary.

12 Bushland (Specific Guidelines)

Bushland is recognised as having a valuable role in protection of fauna habitat, visual amenity, and has cultural and scientific values.

Escarpment Areas

Bushland on escarpments has been identified as being of special significance for the protection of the visual environment, and for catchment protection. Clearing is not to occur in highly visible escarpment areas. Any buildings or structures are not to be highly visible from a distance.

Watercourses

Natural vegetation, and aquatic communities are to be retained along watercourses as far as possible. Watercourses within bushland are particularly susceptible to disturbance and invasion by weeds, and additional measures are to be taken to monitor and control disturbance in such areas.

13 Wetlands (Specific Guidelines)

Wetlands are important in Wyong Shire because among other things, they have a role in sediment and nutrient filtration, thus maintaining downstream water quality. Important issues are clearing, filling and draining in and around wetlands. Wetlands occur in a variety of situations, and may be associated with estuaries, floodplains and other streams, or other poorly drained sites. As far as possible, the functions of existing wetlands are to be maintained.

Loss of Wetlands

Any activity undertaken is to result in no net loss of wetland area or wetland functions, and measures will be undertaken to ensure that there is no degradation of the quality of wetlands.

Filling and Draining

There shall be no reclamation, filling or draining which results in any loss of, or disturbance to wetlands or other associated natural habitat.

Bushfire Hazard Reduction

Any hazard reduction activities within and adjacent to wetlands will take into account the effect of the activities and measures shall be taken to ensure that no adverse effects occur.

Fauna Habitat

The fauna habitat value of wetlands and associated surrounding natural areas is to be maintained, and where possible, enhanced.

Information Data Base

Each individual wetland site is different and contains a unique combination of plants, animals, and geological characteristics. Where any activities or works are proposed, an evaluation of the specific information relating to the site is to be compiled and taken into consideration.

14 Lake Foreshores and Estuaries (Specific Guidelines)

The prime objective is to promote the protection of estuarine habitats, ecosystems and amenity, and to allow the sustainable use of estuarine resources.

Habitat Protection

Existing natural habitats are to be maintained.

Foreshore Access

Existing public access to and along estuarine foreshores shall be maintained as far as possible.

Foreshore Structures

Recognised fishing grounds are not to be alienated by foreshore structures.

Pollution

Pollution of estuaries is to be minimised by use of alternative disposal methods or high level treatment of wastes.

Lake Foreshores

Activities near coastal lagoons shall be strictly controlled with the objective of maintaining a level of water quality suitable for fish and other aquatic life.

Stormwater Drains

Drains into foreshores and estuaries are to incorporate pollution control measures to minimise load of debris, nutrients and other chemicals entering the waterway.

Foreshore Erosion

Measures shall be taken to prevent foreshore erosion.

Land Reclamation

There shall be no reclamation of foreshores or estuaries which results in any loss of, or disturbance to wetlands or other natural habitat with adequate environmental assessment.

Threatened Fauna

A number of threatened fauna species (especially birds) utilise foreshores and estuaries, and are subject to international and national agreements. Specific management guidelines may apply, and the major management issues are as follows and shall be specifically taken into account:

- * Habitat degradation.
- * Disturbance of beach nesting sites, inter-tidal feeding grounds and high tide roosts.
- * Pollution

Tree Clearing

Trees along foreshores are not to be cleared to provide for views, and native vegetation is to be retained and regenerated.

15 Coastal Areas (Specific Guidelines)

The plan seeks to ensure that coastal areas are protected and that natural hazards are not increased by inappropriate development and activities. Recreational use is to be limited to protect natural coastal environments.

Dune Management

Sand dunes are subject to erosion due to intense recreational use as well as natural causes. Measures shall be taken to protect dunes, and to reconstruct, revegetate and maintain dunes which have been subject to active erosion.

Beach Erosion

Beach erosion will be monitored following storms. Supplementary material will not be added to beaches, and natural processes of erosion and aggravation will be allowed to continue.

Coastal Channels and Lagoons

Engineering works shall not be undertaken to protect channels or lagoons, or to remove sediment, except where a prior environmental impact assessment has occurred and measures have been taken to prevent the cause of the instability or sedimentation.

Vegetation Degradation and Sand Drift

Measures shall be taken to prevent degradation and loss of natural vegetation. Sand drift is a natural feature of coastal areas, and shall be recognised in management.

Coastal Inundation

Areas of regular coastal inundation will be documented as far as possible. In affected areas, no activities will be undertaken which could be adversely affected by inundation.

Slope and Cliff Instability

The Council may limit public access and any activities in areas of potential instability.

Stormwater Erosion

There shall be no discharge of stormwater across beaches unless suitable measures have been taken to prevent beach erosion.

Cliffs and Hazardous Locations

Cliffs and other locations regularly used by visitors for recreational use, shall be signposted to identify significant potential hazards, and measures may be taken to limit access where the Council considers this to be in the public interest.

SECTION 3 - IMPLEMENTATION

HOW TO APPLY THE MANAGEMENT POLICIES AND GUIDELINES

The management policies and guidelines outlined in this plan must be taken into consideration in making decisions on management and must be complied with.

ACTION PLAN

This plan specifies performance targets and priorities for actions to be taken in relation to the land to which the plan applies. As far as possible, the matters specified in the plan will occur.

Assessment of the achievement of the objectives of the plan is to be undertaken. A summary of indicators and targets for major objectives is outlined in the table below:

Objectives and Performance Targets of the Plan with respect to the Land	Means by which the Council proposes to achieve the Plan's Objectives and Performance Targets	Manner in which the Council proposes to assess its Performance with respect to the Plan's Objectives and Performance Targets
Natural Area Objectives		
To conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which the land is categorised as a natural area.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To maintain the land, or that feature or habitat, in its natural state and setting.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To provide for the restoration and regeneration of the land.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To provide for community use of and access to the land in such a manner as will minimise and mitigate any disturbance caused by human intrusion.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To assist in and facilitate the implementation of any provisions restricting the use and management of the land that are set out in a recovery plan or threat abatement plan prepared under the Threatened Species Conservation Act 1995 or the Fisheries Management Act 1994.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.

Objectives and Performance Targets of the Plan with respect to the Land	Means by which the Council proposes to achieve the Plan's Objectives and Performance Targets	Manner in which the Council proposes to assess its Performance with respect to the Plan's Objectives and Performance Targets
Bushland Objectives		
To ensure the ongoing ecological viability of the land by protecting the ecological biodiversity and habitat values of the land, the flora and fauna (including invertebrates, fungi and micro-organisms) of the land and other ecological values of the land.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To protect the aesthetic, heritage, recreational, educational and scientific values of the land.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To promote the management of the land in a manner that protects and enhances the values and quality of the land and facilitates public enjoyment of the land, and to implement measures directed to minimising or mitigating any disturbance caused by human intrusion.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To restore degraded bushland.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To protect existing landforms such as natural drainage lines, watercourses and foreshores.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To retain bushland in parcels of a size and configuration that will enable the existing plant and animal communities to survive in the long term.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To protect bushland as a natural stabiliser of the soil surface.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
Wetland Objectives		
To project the biodiversity and ecological values of wetlands, with particular reference to their hydrological environment (including water quality and water flow), and to the flora, fauna and habitat values of the wetlands.	Maintain the extent and quality of natural areas, including adequate buffer zones between wetland areas and new development proposals.	No reduction in area or degradation of natural areas. No degradation of fringing wetlands (Swamp Forest or Foreshore Vegetation) unless it can be established that the natural area management objectives are maintained.
To restore and regenerate degraded wetlands.	Areas of degraded wetland will be restored and weed species removed.	Retention of present abundance and diversity of plant species and plant community structure.
To facilitate community education in relation to wetlands, and the community use of wetlands, without compromising the ecological values of wetlands.	Involve community in environmental monitoring initiatives.	Wyong Council's Environmental Systems are responsible for Shire wide program.

Objectives and Performance Targets of the Plan with respect to the Land	Means by which the Council proposes to achieve the Plan's Objectives and Performance Targets	Manner in which the Council proposes to assess its Performance with respect to the Plan's Objectives and Performance Targets
Foreshore Objectives		
To maintain the foreshore as a transition area between the aquatic and the terrestrial environment and to protect and enhance all functions associated with the foreshores role as a transition area.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
To facilitate the ecologically sustainable use of the foreshore and to mitigate impact on the foreshore by community use.	Compliance with guidelines of this plan.	Minimal negative feedback received. User satisfaction.
General Objectives		
To ensure that the Act is complied with in relation to preparation of Plans of Management.	The Plan is prepared in accordance with the Act	The Plan is exhibited and adopted by Council
To inform Council staff and the community of the way the land will be managed.	The Plan is exhibited in accordance with the Act	The Plan is exhibited and adopted by Council
To progressively improve the values of the land and to minimise the long term cost of maintenance to the Council.	Carry out all works identified in the master plan	All works are completed and minimal maintenance of the improvements is required
To make provision for leases, licences and agreements in respect of the land.	The Plan of Management authorises the provision of leases etc. where appropriate	Any leases are prepared, exhibited and adopted in accordance with the provisions of the Local Government Act
To identify and recognise existing uses and improvements on the land.	Physical inspection	The Plan is exhibited and adopted by Council
To provide a reference and data bank in relation to information relevant to present and future management of the land.	Physical inspection and file research	The Plan is exhibited and adopted by Council
To set in place an administrative structure to ensure the achievement of land management objectives.	Ensure that all sections of Council are aware of the contents of the Plan	All future works are carried out in accordance with the Plan
To identify the major management issues applying to the land.	Consultation and staff discussions	The Plan is exhibited and adopted by Council
To simplify the process of management as far as possible.	Preparation of the Plan in accordance with the Act	The Plan is exhibited and adopted by Council

ADMINISTRATION

The Council's General Manager is responsible for implementing the provisions of this plan.

The Council's Strategic Planning Department is responsible for co-ordinating the planning studies and for reviewing the plan.

The main priority for management during the term of this plan is to maintain current facilities at least their present level, to prepare an updated inventory of facilities and to establish a framework for future management of natural areas. Particular attention needs to be given to staff development and training in management of natural areas, and in compiling and maintaining a data base of natural resource information relating to the land. Future plans of management could include a program of works to be undertaken.

The plan does not provide for significant development works, and any major developments are expected to require the preparation of a specific plan of management to authorise the works on the land on which they are proposed.

REVIEW OF PLAN

The plan may be reviewed, if required, and the updated plan will be adopted by the Council.

DICTIONARY OF TERMS USED

“Activity” means an action, whether a use of land or in association with use of land, leading to a disturbance or change to the ecosystems on the land.

“Biological diversity (or biodiversity)” means the variety of life forms, the different plants, animals and micro organisms, the genes they contain and the ecosystem of which they form a part. The concept is often considered at genetic, species, ecosystem and habitat levels.

“Bushland” means land on which there is vegetation which is either a remainder of the natural vegetation of the land, or, if altered, is still representative of the structure and floristics of the natural vegetation.

“Bush Regeneration” means the rehabilitation of bush from a weed infested or otherwise degraded plant community to a healthy community composed of native species.

“Corridor” applies to both fauna and plants and means areas, usually linear, of native vegetation which allow migration of plants and animals between larger areas of habitat, and provide examples of local biota and habitat for various species in their own right.

“Ecologically sustainable development” means development that uses, conserves and enhances the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future can be increased.

“Ecological processes” means processes which play an essential part in maintaining ecosystem integrity. Four fundamental ecological processes are the cycling of water, the cycling of nutrients, the flow of energy, and biological diversity (as an expression of the process of evolution).

“Ecosystem” means a dynamic complex of plant, animal, fungal and micro-organism communities and associated non-living environment interacting as an ecological unit.

“Fauna” means animals.

“Habitat” means the place or type of site where an organism occurs or lives, whether permanently or occasionally.

“Habitat value” means whether an area is capable of supporting large numbers of a range of species. To enable this, it must contain a range of sufficient resources such as nesting places, food, protection from predators etc. as required by each species present.

“Home range” means the area used by a species for day to day activities such as feeding, breeding and nesting.

“Natural Area” means land predominantly managed to protect and retain the natural ecosystems occurring on that land, and is as may be defined in the Local Government Act 1993.

“Native species” means a species indigenous to the local area and having genetic material deriving from that local area.

“Plant community” means a group of organisms living together in a definable region or habitat and defined by the vegetation.

“Threatened species” means a species listed in Part 1 or 4 of Schedule 1 or in Schedule 2 of the Threatened Species Conservation Act 1995. These species are considered to be at risk of becoming extinct, or becoming endangered.

“Species” means a group of organisms capable of interbreeding freely with each other but not with members of other species.

“Wetland” means land periodically inundated with water, comprising emergent vegetation dominated by characteristic wetland species.

REFERENCES

- Andrews Neil (1995) Strategic Vegetation Survey, Wyong Shire: Stage 1 Report
- Buchanan, R A (1989) Bush Regeneration: Recovering Australian Landscapes, TAFE
- Lunnon, P (1980) Wyong Shire Natural Areas Study, Department of Environment and Planning (unpublished)
- Murphy, C L (1992) Soil Landscapes of the Gosford - Lake Macquarie 1:100,000 Sheet, Soil Conservation Service of NSW
- NSW Department of Planning (1991) Urban Bushland Management Guidelines
- NSW Government (1990) Coastline Management Manual
- NSW Government (1992) Estuary Management Manual
- Wyong Shire Council State of the Environment 2000

ATTACHMENTS

- Schedule 1 - Land to which this plan applies

Schedule 1 - Land to Which this Plan Applies

Lot	Sect	DP	Street	Suburb	OS Ref	Categorisation	Description
15		789442	Yakalla St	BATEAU BAY	3	Natural Area	Bushland
42		786699	Morley Ave	BATEAU BAY	3	Natural Area	Bushland
150		204305	Promenade Ave	BATEAU BAY	3	Natural Area	Bushland
478		704452	Tyrrell Pl	BATEAU BAY		Natural Area	Bushland
1		1009684	Cresthaven Ave	BATEAU BAY		Natural Area	Bushland
11		729013	Wyong Rd	BERKELEY VALE		Natural Area	Bushland/Wetland
12		729013	Wyong Rd	BERKELEY VALE		Natural Area	Bushland/Wetland
25		869735	Wyong Rd	BERKELEY VALE		Natural Area	Bushland
30		863611	Wyong Rd	BERKELEY VALE		Natural Area	Bushland
108		628381	Lakedge Ave	BERKELEY VALE		Natural Area	Foreshore
210		819184	Bundilla Pde	BERKELEY VALE	2	Natural Area	Bushland
22		766263	Hereford St	BERKELEY VALE			
24		869735	Lachlan Pl	BERKELEY VALE		Natural Area	Bush/Fire Trail
202		218002	Birdwood Dr	BLUE HAVEN	8	Natural Area	Wetland
352		816884	Girraween St	BUFF POINT		Natural Area	Bushland
1		537728	Brush Creek Rd	CEDAR BRUSH CREEK	4	Natural Area	Bushland
24		201943	Teragalin Dr	CHAIN VALLEY BAY	10	Natural Area	Wetland
145		31565	Scaysbrook Ave	CHAIN VALLEY BAY	10	Natural Area	Wetland
170		201943	Teragalin Dr	CHAIN VALLEY BAY	10	Natural Area	Wetland
8		12421	Panorama Ave	CHARMHAVEN		Natural Area	Wetland
152		27960	Kalua Dr	CHITTAWAY BAY		Natural Area	Foreshore
99		215875	Denman St	DOYALSON	8	Natural Area	Wetland
101		215875	Denman St	DOYALSON	8	Natural Area	Wetland
9		262720	Buangi Rd	DURREN DURREN	4	Natural Area	Bushland
3		621867	Fountain Rd	FOUNTAINDALE	2	Natural Area	Bushland
4		261118	Fountain Rd	FOUNTAINDALE	2	Natural Area	Bushland
4		612603	Fountain Rd	FOUNTAINDALE	2	Natural Area	Bushland
4		621867	Fountain Rd	FOUNTAINDALE	2	Natural Area	Bushland
5		808955	Berrys Lane	FOUNTAINDALE	5	Natural Area	Bushland
98		755263	Brush Rd	FOUNTAINDALE		Natural Area	Bushland
99		755263	Brush Rd	FOUNTAINDALE		Natural Area	Bushland
1		264586	Anderson Rd	GLENNING VALLEY	2	Natural Area	Bushland
1		846053	Heather Ave	GLENNING VALLEY		Natural Area	Bushland
2		262059	Berkeley Rd	GLENNING VALLEY	2	Natural Area	Bushland
4		834692	Beckingham Rd	GLENNING VALLEY	2	Natural Area	Bushland
4		874472	Glenning Rd	GLENNING VALLEY		Natural Area	Bushland
5		260895	Corona Lane	GLENNING VALLEY	2	Natural Area	Bushland
8		260870	Corona Lane	GLENNING VALLEY	2	Natural Area	Bushland
8		711046	Beckingham Rd	GLENNING VALLEY	2	Natural Area	Bushland
11		714754	Greenbank Rd	GLENNING VALLEY	2	Natural Area	Bushland
12		262872	Southfork Dr	GLENNING VALLEY	2	Natural Area	Bushland
17		255450	Beckingham Rd	GLENNING VALLEY	2	Natural Area	Bushland
17		263306	Glenning Rd	GLENNING VALLEY	2	Natural Area	Bushland
18		263306	Glenning Rd	GLENNING VALLEY	2	Natural Area	Bushland
20		735022	Beckingham Rd	GLENNING VALLEY	2	Natural Area	Bushland
28		739783	Roxburgh Cl	GLENNING VALLEY	2	Natural Area	Bushland
105		805181	Bundeena Rd	GLENNING VALLEY	2	Natural Area	Wetland
50		23613	Dalnott Rd	GOROKAN		Natural Area	Foreshore
105		30327	Brennon Rd	GOROKAN	7	Natural Area	Foreshore Reserve
3		740701	Parraweena Rd	GWANDALAN	12	Natural Area	Wetland
9		263812	Bonny Boy Way	GWANDALAN		Natural Area	Bushland
A		30228	Gamban Rd	GWANDALAN		Natural Area	Foreshore

Lot	Sect	DP	Street	Suburb	OS Ref	Categorisation	Description
1217		24050	Sunrise Ave	HALEKULANI		Natural Area	Foreshore
1455		24541	Sunrise Ave	HALEKULANI		Natural Area	Foreshore
1456		24541	Sunrise Ave	HALEKULANI		Natural Area	Foreshore
6		859716	Marion Pl	JILLIBY	4	Natural Area	
16		228750	Hue Hue Rd	JILLIBY	4	Natural Area	Bushland
46		740438	Holloway Dr	JILLIBY	4	Natural Area	Bushland
47		740438	Hue Hue Rd	JILLIBY	4	Natural Area	Bushland
11		876828	Pedaman Pl	JILLIBY		Natural Area	Bushland
7		880403	Sparks Rd	JILLIBY		Natural Area	Bushland
20		1006191	Holloway Dr	JILLIBY		Natural Area	Bushland
21		1006191	Hue Hue Rd	JILLIBY		Natural Area	Bushland
1252		1010979	Dicksons Rd	JILLIBY		Natural Area	Bushland
2		247470	Pacific Hwy West	KANGY ANGY	5	Natural Area	Bushland
619		816848	Christopher Cres	LAKE HAVEN		Natural Area	Bushland
630		816848	Christopher Cres	LAKE HAVEN		Natural Area	Bushland
70		222868	Wallaby Rd	LAKE MUNMORAH	10	Natural Area	Wetland
79		217918	Kemira Rd	LAKE MUNMORAH	10	Natural Area	Wetland
5222		827059	Pacific Hwy East	LAKE MUNMORAH	10	Natural Area	Wetland
4		734269	Shelly Beach Rd	LONG JETTY	3	Natural Area	Bushland
70		871748	Matthew Court	MARDI		Natural Area	Bushland
252		830415	Gavenlock Rd	MARDI		Natural Area	Bushland
337		836364	Woodbury Park Dr	MARDI		Natural Area	Bushland
1		393788	Budgewoi Rd East	NORAVILLE		Natural Area	Foreshore
3		703285	Reynolds Rd	NORAVILLE	6	Natural Area	Wetland
10		229263	Elizabeth St	NORAVILLE	6	Natural Area	Hargraves Beach (Foreshore)
84		27889	Elizabeth St	NORAVILLE	6	Natural Area	Hargraves Beach (Foreshore)
99		27229	Beulah Rd	NORAVILLE	6	Natural Area	Bushland
118		26104	Budgewoi Rd East	NORAVILLE	6	Natural Area	Hargraves Beach (Foreshore)
244		26394	Birriga Rd	NORAVILLE	6	Natural Area	Wetland
4		549925	Bangalore St	OURIMBAH	5	Natural Area	Bushland
23		847856	Chittaway Rd	OURIMBAH	5	Natural Area	Bushland
1		314314	Ourimbah Creek Rd	PALM GROVE		Natural Area	Bushland
86		828945	Callen Ave	SAN REMO		Natural Area	Bushland
87		828945	Callen Ave	SAN REMO		Natural Area	Bushland
12		789442	Phillip St	SHELLY BEACH	3	Natural Area	Bushland
4		263812	Summerland Rd	SUMMERLAND POINT	12	Natural Area	Tunkawallin Park (Bushland)
210		830759	Yeramba Rd	SUMMERLAND POINT	12	Natural Area	Bushland
211		830759	Yeramba Rd	SUMMERLAND POINT	12	Natural Area	Bushland
266		830759	Yeramba Rd	SUMMERLAND POINT	12	Natural Area	Bushland
3	28	4460	Wolseley Ave	TACOMA		Natural Area	Wetland
4	28	4460	Wolseley Ave	TACOMA		Natural Area	Wetland
5	28	4460	Tumbi Rd	TACOMA		Natural Area	Wetland
6	28	4460	Wolseley Ave	TACOMA		Natural Area	Wetland
9		261746	South Tacoma Rd	TACOMA SOUTH	1	Natural Area	Wetland

Lot	Sect	DP	Street	Suburb	OS Ref	Categorisation	Description
55		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
56		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
77		4065	South Tacoma Rd	TACOMA SOUTH	1	Natural Area	Wetland
158		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
197		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
246		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
273		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
301		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
302		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
303		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
356		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
357		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
376		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
377		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
378		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
386		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
393		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
399		15857	Clearwater Est	TACOMA SOUTH	1	Natural Area	Wetland
73		227174	Elizabeth St	THE ENTRANCE NORTH	3	Natural Area	Wyrabalong National Park (Bushland)
74		227174	Curtis Pde	THE ENTRANCE NORTH	3	Natural Area	Dune
22		881850	Terilbah Pl	THE ENTRANCE NORTH		Natural Area	Bushland
22		237466	Nicholson Cres	TOUKLEY	6	Natural Area	Wetland
22		841245	Pepper Cl	TOUKLEY	6	Natural Area	Wetland
724		26247	Palomar Pde	TOUKLEY	6	Natural Area	Wetland
1		786567	NR	TUGGERAH	1	Natural Area	Wetland
2		810238	Wyong Rd	TUGGERAH	1	Natural Area	Bushland
161		30813	California Cir	TUGGERAH	1	Natural Area	Wetland
211		873983	Reliance Dr	TUGGERAH		Natural Area	Bushland
2		805621	Cooranga Rd	TUGGERAWONG	1	Natural Area	Bushland
2		700153	Leetes Lane	TUMBI UMBI	2	Natural Area	Bushland
5		716277	Woodbury Lane	TUMBI UMBI	2	Natural Area	Wetland
5		748413	Tumbi Rd	TUMBI UMBI	2	Natural Area	Bushland
6		241138	Brush Rd	TUMBI UMBI	2	Natural Area	Bushland
6		255562	Hansens Rd	TUMBI UMBI	2	Natural Area	Wetland
10		712534	Halloran Lane	TUMBI UMBI	2	Natural Area	Bushland
19		260364	Northumberland Way	TUMBI UMBI	2	Natural Area	Wetland
19		831834	Bangalow Cl	TUMBI UMBI	2	Natural Area	Bushland
21		806713	Molsten Ave	TUMBI UMBI	2	Natural Area	Wetland
22		735022	Pescud Cl	TUMBI UMBI	2	Natural Area	Bushland
24		839792	Morgan Ave	TUMBI UMBI	2	Natural Area	Wetland
31		847373	Roberta St	TUMBI UMBI	2	Natural Area	Wetland
39		778320	Palm Valley Rd	TUMBI UMBI	2	Natural Area	Bushland
43		29509	Pelican St	TUMBI UMBI	2	Natural Area	Wetland
63		778320	Palm Valley Rd	TUMBI UMBI	2	Natural Area	Bushland
1232		747844	Tumbi Rd	TUMBI UMBI	2	Natural Area	Wetland
54		1003344	Beckingham Rd	TUMBI UMBI		Natural Area	Bushland
53		1003344	Marlio Pl	TUMBI UMBI		Natural Area	Bushland
52		1003344	Marlio Pl	TUMBI UMBI		Natural Area	Bushland

Lot	Sect	DP	Street	Suburb	OS Ref	Categorisation	Description
34		9215	Aldenham Rd	WARNERVALE		Natural Area	Bushland
52		248953	Casey Dr	WATANOBBI	1	Natural Area	Bushland
652		816844	Gowrie Place	WATANOBBI	1	Natural Area	Bushland
4049		810547	Watanobbi Rd	WATANOBBI		Natural Area	Bushland
6075		835228	The Terrace	WATANOBBI		Natural Area	Bushland
6076		835228	The Terrace	WATANOBBI		Natural Area	Bushland
1		623789	Pollock Ave	WYONG	1	Natural Area	Wetland
1		703469	Pollock Ave	WYONG	1	Natural Area	Wetland
1		925666	Howarth St	WYONG	1	Natural Area	Wetland
2		239617	Howarth St	WYONG	1	Natural Area	Wetland
2		550364	Howarth St	WYONG	1	Natural Area	Wetland
2		614819	Pollock Ave	WYONG	1	Natural Area	Wetland
3		614819	Pollock Ave	WYONG	1	Natural Area	Wetland
24		239189	Bowman Cl	WYONG	1	Natural Area	Baker Park - Duckpond (Wetland)
103		877557	Pacific Hwy East	WYONG		Natural Area	Bushland/Creek