
LANDSCAPE MANAGEMENT POLICY

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ii. Summary

The existing Ku-ring-gai Landscape is in decline. Council's vision is to ensure that the quality living environment of the municipality is maintained and managed for the benefit of the existing community and future generations.

This Policy aims to:

- ◆ consolidate existing Council information regarding landscape matters and document existing procedures taking place.
- ◆ clarify and expand available landscape information and guidance where it is deficient
- ◆ set a definite and consistent framework for Council staff, residents, applicants and Councillors to apply when assessing management of the Ku-ring-gai Landscape.

This policy will be supplemented with detailed guidelines about particular issues.

This policy does not nominate particular types of plants or species selection other than for environmentally sensitive zones (see Appendix A), and in accordance with Council's adopted Weed Management Policy.

iii. Introduction

The Landscape Management Policy applies to all new development and major works within the Municipality of Ku-ring-gai and applies equally to private and public land. The policy interprets the intent of the landscape aspects of the *Vision for Conservation of the Ku-ring-gai Landscape and Habitat* (adopted by Council in May 1996) and establishes standards and constraints to assist with achieving the vision objectives.

The Policy seeks to protect and enhance the unique character and amenity of Ku-ring-gai. It explains for those who actually undertake development planning and activity, what responsibilities and principles that Council expects.

Local Government (Council) has an obligation and the capacity to implement, guide and enforce high quality development or redevelopment. It can encourage development which results in a benefit in environmental and landscape terms, and such development can improve overall environmental quality without detracting from the economic viability of the project under consideration.

In NSW, Local Government is the primary land use planner and manager and plays a vital role in the successful implementation of Agenda 21: (Agenda 21 is an international agreement reached at the 1992 UNCED conference, to which Australia is a signatory. It details a plan for the 21st century with a focus on sustainable living.)

"Local authorities construct, operate and maintain economic, social and environmental infrastructure... establish local environmental policies and regulations and assist in implementing... national environmental policies. As the level of governance closest to the people, they play a vital role in educating, mobilising and responding to the public to promote sustainable development" Agenda 21

The Australian National Strategy for Ecologically Sustainable Development (ESD) defines ESD as *"Development that improves total quality of life both now and in the future in a way that maintains the ecological processes on which life depends"*.

Consistent with the principles of Agenda 21 and the need to achieve ecologically sustainable development (ESD), this landscape policy

reflects the philosophy behind Ku-ring-gai Municipal Council's Vision statement within the 1997 - 2000 Management Plan adopted on 10th June 1997 and Council's Local Agenda 21 commitment of June 1994.

"to ensure that the quality living environment of the municipality is maintained and managed for the benefit of the existing community and future generations".

The landscape policy sets a framework around which development controls, operational procedures and guidelines for the protection and enhancement of the Ku-ring-gai landscape are based. This policy will be supplemented by a Landscape Guidelines document for specific landscape applications.

Consistent with ESD principles, the policy strives to pursue low maintenance; efficient use of energy and water; and minimisation, recycling or avoidance of waste.

This policy should not generally change in the short-term unless there is a major change in community expectations. However, individual statements may need to be amended, added or excluded as new information, legislation or issues arise. A major review of the policy should take place at a minimum rate of once per Council term, in addition to any minor adjustments.

iv. Landscape Character of Ku-ring-gai

'One of the most important aspects of creating gardens is one of cultural context and genius loci (spirit of place). It means having regard not just for the physical qualities of a site (soil, water, climate), but also the context in which the garden is created and for whom.' Ken Taylor 1997

Existing Character

Ku-ring-gai is considered significant within Sydney as an area of remnant forest and established exotic trees interspersed with development, giving the appearance of a residential garden setting within the bush. Early orcharding and development on individual allotments introduced an image of the exotic garden within the framework of indigenous trees and surrounding bushland. This has formed a landscape heritage of uniquely Ku-ring-gai character. (Fig 1)

The attractiveness of Ku-ring-gai's landscape is influenced by:

- ◆ remnant stands of tall forest along the ridgetops;
- ◆ the character of large allotments containing high quality detached housing of 1 to 2 storeys set in a forest-like setting; (Fig 2)
- ◆ buildings set well back from the street and side boundaries which allow generous soft landscaped front yards and spaces between dwellings generally containing substantial planting; (Fig 3)
- ◆ significant private tree and vegetation planting which complements street trees and parkland;
- ◆ the undulating land between ridges.

The dominant landscape feature of the Municipality is the 'tree', whether indigenous, native or exotic.

The contribution of the urban bushland to the visual quality is significant.

Context

Ku-ring-gai Municipal Council is located in the northern region of metropolitan Sydney and covers an area of approximately 8,500 hectares. Adjoining land administrators include Hornsby, Warringah, Willoughby, and Ryde Councils, and the NSW National Parks and Wildlife Service. The latter is responsible for management of Ku-ring-gai Chase, Lane Cove and Garigal National Parks which have extensive bushland boundaries adjoining Ku-ring-gai's developed areas. Ku-ring-gai is renowned for its bushland setting. The significance of the bushland to the local area - recreationally, educationally and aesthetically - is substantial.

Development is principally low density residential and commercial. This development is largely concentrated along a central broad ridge on which the Pacific Highway and north shore rail line are situated.

The area receives the highest rainfall in Sydney and is characterised and well known for its tall forest landscape character. Tall forest trees of Sydney Blue Gum and Blackbutt are remnants of the forests that covered large areas of Ku-ring-gai prior to settlement.

Bushland in Ku-ring-gai

Approximately 37% of the Ku-ring-gai Council area is zoned or reserved for open space. Over 28% of the area is also still covered in bushland, largely conserved in Council's bushland reserves or on lands managed by the NSW National Parks and Wildlife Service. Bushland on public and private land is subject to the provisions of State Environmental Planning Policy No.19 - Bushland in Urban Areas (SEPP 19). The aim of SEPP 19 is to protect and preserve bushland within the urban area because of its recreational, educational, scientific and aesthetic values.

A number of flora and fauna species listed in the Threatened Species Conservation Act 1995 have been recorded in Council's reserve system. Considerable portions of Council's bushland have also been identified as having vegetation communities or fauna colonies which are of state or regional significance. These vegetation communities include most of the last remaining Sydney Blue Gum tall forest in the Metropolitan region and fauna colonies include the only Sydney colony of Grey-headed Flying-foxes (*Pteropus poliocephalus*), which is the largest maternity colony of this species in southern New South Wales.

Environmentally Sensitive Areas

With development occurring along the central ridges, steeper land downslope in Middle Harbour, Cowan Creek and Lane Cove River catchments have been conserved in their natural state. As a result of the topographic location of development, negative environmental impacts (for example, nutrient runoff, weed invasion, garden dumping, domestic animals) from development activities flow down into the natural areas. These areas are considered to be environmentally sensitive having taken into account:

- ◆ Bushfire hazards
- ◆ Buffer zones around bushland
- ◆ Ridge development extending out into the large bushland reserves
- ◆ Linkages for wildlife
- ◆ Conservation of indigenous tree cover on private property
- ◆ High erosion and slip areas
- ◆ Land adjacent to watercourses

More detail regarding these zones is available in Council's Residential Strategy, an extract from which is attached as Appendix A.

I. Planning, Design and Development Control

That it be Council policy to:

- LP1.1 Promote landscape design and development which enhances, improves and complements Ku-ring-gai's established landscape. Identify significant natural and human features of a site which determine the essence or established character of the site.
- LP1.2 Encourage retention of the established landscape character of an area when threatened by increased density development pressures.
- LP1.3 Encourage efficient development based on ecologically sustainable development (ESD) design principles.
 - 1.3.1 Encourage retention of remnant native vegetation for preservation of habitat and biodiversity.
 - 1.3.2 Encourage microclimate control on a site by using wind breaks, solar access and sun protection through energy efficient gardens and deciduous trees.
- LP 1.4 Provide guidance about landscape character and design treatments that may be expected and required for development.
- LP 1.5 Advise that landscape works will be expected, required and enforced by Council for all relevant projects. Discourage development proposals which fail to meet satisfactory landscape standards.
- LP 1.6 Advise applicants that procedures for landscape works approval are expedited through compliance with the Landscape Policy.
- LP 1.7 Encourage professional landscape planning, design and construction using appropriate professional architects, designers and contractors.

- LP 1.8 Include necessary landscape works consent conditions for all relevant projects. Monitor and enforce landscape requirements applied as conditions of consent. Implement security deposits where appropriate on existing landscape, natural and cultural features to encourage retention and consent compliance. The security deposit will be based on likely restoration costs in accordance with s.97 of the Local Government Act 1993.
- LP 1.9 Require compliance with all Council Policies within all landscape projects (such as Bushland Management Policies, Sun Protection Policies, Energy Efficient Policies, Weed Management Policies, Stormwater Management Policies, Access Policies, Tree Replenishment Policies and The Good Design Manual).
- LP 1.10 Identify and record significant trees, both native and exotic, included on Council's Significant Tree Register, Permanent Tree Preservation Orders, subdivision plans and from Court decisions and encourage development which will protect and retain such trees.
- LP 1.11 Record and monitor tree canopy to allow on-going comparison that the existing canopy is being retained and replenished and that existing species diversity is maintained.
- LP 1.12 Encourage the use of indigenous plantings in identified landscape and habitat rehabilitation activities, including the use of species for all structural layers.
- LP 1.13 Promote awareness of Rare and Threatened fauna and flora species found in private property and support development which protects and retains these species on site.
- LP 1.14 Promote the use of an appropriate range and diversity of plant species and character, both native and exotic, for the landscape design of a site in other than Environmentally Sensitive Zones and in accordance with Council's adopted Weed Management Policy.
- LP 1.15 Document and protect heritage and cultural landscapes and Aboriginal sites and support development which will retain them.

LP 1.16 Require landscape works undertaken in identified Environmentally Sensitive Areas to comply with specific requirements and consent conditions.

2. Council Operations

That it be Council policy to:

- LP 2.1 Adequately plan and budget for an appropriate landscape works component in every relevant Council project. Require an approved and funded landscape proposal prior to any construction works by Council.
- LP 2.2 Comply with current adopted Council codes, policies, guidelines and standards for Council's design, construction and maintenance works.
- LP 2.3 Provide preliminary landscape assessments to identify site opportunities and constraints for Council Departments where works are proposed on Council managed lands.
- LP 2.4 Protect and conserve identified scarce landscape features, components and resources on Council owned and managed land.
- LP 2.5 Require Council's plans for works on Council managed land to include appropriate site protection, vegetation protection, habitat protection, progressive control of weed species, rehabilitation measures and on-going maintenance.
- LP 2.6 Require strict compliance with the requirements of Parts 4 and 5 of the Environmental Planning and Assessment Act in relation to new or changed activities on Community and Operational Land.
- LP 2.7 Notify the public in advance of Council projects and works to be undertaken, especially those which may cause vegetation, natural feature or habitat removal.
- LP 2.8 Require all works on Community Land to be endorsed by Council's Parks and Landscape Services Department (who are the Community Land Managers) during project planning, prior to commencement, and on completion.

- LP 2.9 Require internal Landscape Security Damage Deposits to be paid by Council Departments prior to commencement of a project where identified natural or cultural features, remnant native vegetation, pavements and parklands may be affected by such works. The security deposit will be based on likely restoration costs, in accordance with s.97 of the Local Government Act 1993.
- LP 2.10 Where trees and/or vegetation are removed or damaged as part of a project, restore and rehabilitate the lost or damaged vegetative cover with appropriate planting prior to the project completion. Replace an equal or greater number of appropriate species as part of the site rehabilitation.
- LP 2.11 Provide comment and advice for the landscape component of government sponsored works such as services rehabilitation works, telecommunications works, statutory catchment management schemes and planning schemes. Supply copies of relevant Council policies, guidelines and brochures (such as Council's Weed Management Policy) to statutory and other government authorities, and industry organisations.
- LP 2.12 Refer government sponsored works proposals to Council's Landscape Development Officers to ensure the landscape component is adequately included.
- LP 2.13 Plant suitable shade trees within Council car parks, streetscapes, business centres, playgrounds, spectator areas, commuter routes and sportsgrounds perimeters. Establish large canopy trees in parks and reserves where there is suitable space for them to reach maturity.
- LP 2.14 Wherever possible, provide planting to traffic devices and roundabouts where the vegetation will not cause safety and visibility problems. Where traffic devices are considered unsuitable, install suitable paving material to blend with the streetscape.
- LP 2.15 Manage roadside and drainage reservations appropriately to reflect the status of the existing vegetation and where appropriate for the protection of habitat and heritage values.

3. Urban Design

That it be Council policy to:

- LP 3.1 Encourage creative landscape design which makes appropriate, identifying contributions to the urban streetscape and local business centre environment. Promote visual unity within the business centre and link the development into the streetscape and the Ku-ring-gai character.
- LP 3.2 Develop publicly accessible spaces and pedestrian links that assist people to move through a business centre and that conform to Council standards. Improve the equity of access to public areas and facilities to benefit disabled people, aged people, carers with babies in strollers and the temporarily disabled, to join the rest of the community in using public areas and facilities.
- LP 3.3 Provide quality landscape spaces within a development for the amenity and enjoyment of those who use them. Consider human comfort elements such as scale, wind, noise, temperature, character, solar access, shade and screening.
- LP 3.4 Use landscape elements to identify and create a human scale around the development (such as paving, street furniture, planting, lighting, signage, and colour schemes).
- LP 3.5 Ensure engineering design of underground car parks and relevant above ground structures allows for loadings for viable planting, drainage and irrigation which can be successfully implemented.
- LP 3.6 Design drive-in facilities, such as service stations, car parks and car yards, to accommodate tree planting on the site, including the street frontages.
- LP 3.7 Liaise with and provide advice to, Council's Business Centres Advisory Committee representatives with regard to physical improvements.

- LP 3.8 Ensure consideration is given to energy and resource conservation issues including water use, waste production, energy consumption and maintenance.
- LP 3.9 Promote planting of suitable available spaces as a contribution to air quality enhancement (consistent with the objectives of the Manual for *Local Government - Local Air Quality Management* - prepared by the Sydney Regional Organisation of Councils) and Greening Australia Principles.

4. Visual Amenity

That it be Council policy to:

- LP4.1 Undertake a visual analysis of the development site to consider views within the development and views to and from the development with regard to the impact upon the visual catchments with which it interacts. This can be part of a site analysis plan required by Council, as detailed in *The Good Design Manual*.
- LP4.2 Recognise the effect of the development on the existing landscape character of an area. This is particularly important in environmentally sensitive areas, visually prominent sites, in relation to heritage items, on corners and sloping sites.
- LP 4.3 Acknowledge the relationship of development with the local landscape and visual catchment. Limit and ameliorate the visual impact on people living in and using the area around a development. Encourage development of a scale and bulk that sits within the landscape and does not dominate it.
- LP 4.4 Discourage a development or building that substantially visually diminishes an area's environmental and landscape character, and encourage a development or building that maintains or improves on the current situation.
- LP 4.5 Ameliorate any negative visual impacts of a development on the surrounding area by the use of suitably scaled and dense plant material, (particularly trees), colour schemes and development silhouette. Retain existing 'non-weed' site vegetation, especially trees, to assist integration of a development into the surrounding landscape.
- LP 4.6 Refer to Council's *Visual Character Study* in the consideration of development proposals and the preparation of Council's codes, policies and guidelines.

5. Environmentally Sensitive Areas

That it be Council policy to:

- LP 5.1 Adopt and encourage the principles of ESD and biodiversity conservation within identified Environmentally Sensitive Areas.
- LP 5.2 Assess all development within these areas to minimise removal of indigenous vegetation, habitat and natural features and encourage rehabilitation, regeneration and re-creation of indigenous vegetation and habitat.
- LP 5.3 Discourage the establishment of new gardens which include unsuitable species, community nuisance plants and other garden escapes. Encourage replacement of inappropriate exotic species with local species which replenish habitat and require less water and no fertilizer.
- LP 5.4 Give priority attention to weed management on public land and private land and promote replacement with indigenous or suitable species.
- LP 5.5 Reduce and control stormwater runoff within and from a development without damaging existing remnant vegetation.
- LP 5.6 Encourage the use of landscape materials which are extracted, harvested and processed in ways that are ecologically sustainable.
- LP 5.7 Recycle weed free vegetation, disease free soil and other suitable materials which cannot be reused on the site, as part of an appropriate composting or recycling program. Recognise the potential and value of preserving local seed banks in the soil and avoiding the introduction of foreign soils.
- LP 5.8 Promote fire fuel reduction works which will minimise any impact on landscape and habitat values.

6. Community Participation and Education

That it be Council policy to:

- LP6.1 Provide a wide range of information about the Ku-ring-gai environment and landscape to assist the public with understanding landscape requirements. Take a lead role in education for conservation of the Ku-ring-gai landscape and habitat.
- LP 6.2 Encourage applicants to liaise with relevant landscape professionals to seek advice prior to lodging development proposals.
- LP 6.3 Monitor and evaluate the environmental quality of Ku-ring-gai using public participation interpretive programs such as *'Wildlife Watch'* and *'Stream Watch'*. Encourage and support residents through programmed and catchment based activities such as *'Bushcare'*.
- LP 6.4 Facilitate supply and provide specialist advice about catchment specific indigenous plants for use in private property.
- LP 6.5 Promote and support community based involvement in the planting of reserves, parks and streets, particularly with appropriate canopy trees.
- LP 6.6 Supply an appropriate range of plant species with information for siting, establishment and care to residents at Citizenship Ceremonies.
- LP 6.7 As resources permit, supply street trees in accordance with *The Street Tree Masterplan* on request
- LP 6.8 Make available information on permaculture gardens, vegetable gardening, mulching and composting programs. Encourage shredding and chipping of less compostable materials to facilitate on-site use.

LP 6.9 Liaise with local nurseries regarding plant species in Ku-ring-gai and provide copies of relevant policies and guidelines to assist them provide expert advice to their Ku-ring-gai customers.

7. Implementation

This policy is to be implemented by the Director Parks and Landscape Services and the Director Development Control and Health Services on the following basis:

- ♦ The Director Parks and Landscape Services is responsible for maintaining the currency and reviews of this policy, administering the landscape component of all works within reserves, parks and bushland, matters relating to public trees, private trees under the Tree Preservation Order and assessing and enforcing the landscape component of all council construction works where consent is not required.

(Responsibilities include preparation of guidelines and information which interpret the policy into practical and achievable outcomes relating to Parks and Landscape Services.)

- ♦ The Director of Development Control and Health Services is responsible for the implementation and enforcement of this policy where development and/or building consent is required. This includes the assessment of landscape plans and determination of landscape requirements and security deposits, inspection of completed works to ensure compliance with consent conditions, security deposit releases and enforcement of breached conditions.

(Responsibilities include preparation of guidelines and information which interpret the policy into practical and achievable outcomes relating to Development Control and Health Services.)

8. Legislation

Council has the statutory responsibility and powers relating to landscape requirements under the following legislation

- ◆ Ku-ring-gai Planning Scheme Ordinance
- ◆ Environmental Planning and Assessment Act section 90(m)
- ◆ State Environmental Planning Policy No 19
- ◆ Tree Preservation Order
- ◆ Noxious Weeds Act
- ◆ Local Government Act 1993 and Approvals Regulations.

9. Definitions

In this Policy, particular attention is drawn to the following definitions:

"amenity" agreeable features, ways; features, facilities or services of a house, estate, district which make for a pleasant and comfortable life.

"biodiversity" the variety of life forms, the different plants, animals and micro-organisms, the genes they contain and the ecosystems they form.

"bushland" is land on which there is vegetation which is either a remnant of the natural vegetation of the land or, if altered, is still representative of the structure and floristics of the natural vegetation.

"canopy tree" is a tree in the highest layer of vegetation.

"Character" is the aggregate of qualities which distinguishes one thing from the others; a significant visual mark or feature.

"development" in relation to any land includes the erection of any building, the subdivision of the land and the carrying out of any work, and any use of the land or building or work thereon for a purpose which is different from the purpose for which the land or building or work was last being used.

"ecologically sustainable development" is using, conserving and enhancing the community's resources so that ecological processes on which life depends are maintained and the quality of life, now and in the future, can be increased.

"environmentally sensitive area" is identified as land that is environmentally sensitive having taken into account:

Bushfire hazards

Buffer zones around bushland

Ridge development extending out into the large bushland reserves

Linkages for wildlife

Conservation of indigenous tree cover on private property

High erosion and slip areas

Land adjacent to watercourses

"exotic" is an introduced plant or animal not native to Australia.

"indigenous" originating in and characterising a particular region; locally occurring native.

"indigenous canopy trees" are locally occurring native species which naturally occur on the parent soil material pertaining to the site and attain a height of at least 13 metres on shale soils and transitional soils and 10 metres on sandstone soils.

"landscape" is the composite of natural and human features that characterise the surface of the land; includes spatial, textural, compositional and dynamic aspects of the land.

"tree" as defined in Council's Tree Preservation Order is a woody plant greater than 5 metres in height or has a branch spread exceeding 4 metres.

"urban environmental weeds" are species identified by Council as commonly causing public and private nuisance in urban situations.

"vision" means the Vision for Conservation of the Ku-ring-gai Landscape and Habitat adopted by Council in May 1996.

"wildlife" means any living Protected Fauna by definition of the National Parks and Wildlife Act (1974).

"wildlife corridor" is strips of natural or near-natural habitat linking patches of bushland. Fauna may use these strips to move between habitats.

Appendix A

DEVELOPMENT ON LAND WHICH AFFECTS ENVIRONMENTALLY SENSITIVE AREAS

Land which is environmentally sensitive to development has been identified. These areas are lands that are environmentally sensitive having taken into account:

- Bushfire hazards
- Buffer zones around bushland
- Ridge development extending out into the large bushland reserves
- Linkages for wildlife
- Conservation of indigenous tree cover on private property
- High erosion and slip areas
- Land adjacent to watercourses

Bushfire Hazard

It is recognised that bushfires are a part of and will occur in bushland reserves. Currently there are planning controls which provide for dwelling setbacks from the bushland and construction standards for dwellings. In many cases these controls can not be accommodated on the individual allotment because of the existing lot configuration. To prevent this situation occurring presently through poor subdivision design, existing allotments adjacent to potential medium and high bushfire hazard areas should be identified as environmentally sensitive.

Allotments adjacent potential medium and high hazard areas should be identified as environmentally sensitive.

Buffer Zones Around Bushland

Residential development and the ongoing residential activities have a deleterious affect on natural bushland. The effects change the environment beyond the residential boundaries. Weed invasion and modification to the remnant vegetation are amongst the obvious impacts.

Other impacts include changes to the soil chemistry and increased frequency and quantities of stormwater flows. Whilst the major impacts from within a catchment area are felt at the particular point of stormwater discharges there are diffuse impacts occurring along the entire bushland residential interface. Impacts that occur at a particular point, such as a major stormwater drain, can be more easily addressed than those which

are diffused along a boundary where weeds, such as vines and creepers, can more easily spread from the adjacent property into the bushland.

Allotments adjacent to open space bushland reserves should be identified as environmentally sensitive.

Ridge Development Extending Into Large Bushland Reserves

The impacts of development on bushland reserves and the potential fires hazards are exacerbated where ridge development intrusions extent out into large bushland reserves. In a situation of bushfires, these ridge developments often have one major road servicing properties along the ridge. Without proper planning this situation could result in access problems for the residents leaving the area and emergency services entering the area. These ridge development intrusions are surrounded in most cases by local ecosystems which contain significant natural values such as threatened species and significant habitats of flora and fauna.

All allotments situated on ridge development which is less than one (1) kilometre wide and extends out into a large bushland area with at least a 200m wide bushland reserve on either side should be identified as environmentally sensitive.

Linkages for Wildlife

Vegetation linkages between bushland reserves can provide benefits such as enhancing the movement of fauna from reserve to reserve. Whilst it is recognised that ground dwelling fauna will not be able to transverse vast areas of residential properties and roads, many arboreal (tree dwelling) and avi (flying) fauna will benefit. In planning vegetation linkages consideration needs to be given to the existing vegetation, the width (the wider the better) of the proposed corridor, the distance between habitat reserves (the shorter the better), opportunities to take advantage of other open space. Whether a species population is isolated or not depends upon the type of species and the barrier, but where populations are isolated, disturbances such as fire or predation have a dramatic impact. It is important to maintain a vegetation link particularly tree canopy between the larger habitat reserves to prevent the local extinction of some species.

Land in Ku-ring-gai area which is the shortest linkage between the largest bushland reserves (such as the national parks) and is at least 1.5 kilometres wide and takes into account opportunities to utilise other open

space and considers the most heavily treed areas on private land should be considered environmentally sensitive.

Conservation of Indigenous Tree Cover in Private Property

Indigenous tree canopy is an important component of the landscape of Ku-ring-gai, can provide habitat for individual mobile aggressive species of fauna and can form part of the feeding range for other species of fauna. the tree canopy situated within private property is also subject to social pressures such as development, potential damage liability claims on the land holder, the removal of trees for the individual rights of property holders. The urban tree population is declining as a result of the mature age of the trees and the impact residential activities such as landscaping (changing ground levels, use of fertilisers and changes to soil chemistry etc.) Difficulties are encountered in considering remnant vegetation on private land when the areas of remnant vegetation on private property are not currently identified and over the last 100 years replenishment rates of trees have been below that of removal. Even with planning controls for private open space there is expected to be a decline in the treed landscape. To reach a situation where there is sustainable canopy tree cover in Ku-ring-gai there would need to be a rate of tree replenishment (replanting) which is greater than the rate of tree removal. In order to do this there would need to be controls put on as conditions of development consent and there would be a need to provide incentives such as free plants and education programs.

The management of the indigenous tree canopy in Ku-ring-gai would be better managed through the Tree Preservation Order and development standards such as number of trees per size of allotment as regulative mechanisms and greater use of incentive and education programs.

High Soil Erosion and Slip Areas

Soil erosion and deposition in waterways and bushland contributes to the decline of environmental standard in those areas affected. the level or rate of erosion is dependant upon the subject to the slope and soil landscape. Those areas identified as being subject to high soil erosion and slip in Ku-ring-gai are allotments which are over 20 degrees slope.

Allotments where at least 50% of the site is in excess of 20 degrees should be identified as environmentally sensitive.

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