

# Tweed Vegetation Management Strategy

AUGUST 2004

*Tweed Shire Council's floral emblem the Coolamon*



Photos: John Turnbull



Volume 1 of 3 Strategy Plan

# TWEED VEGETATION MANAGEMENT STRATEGY 2004

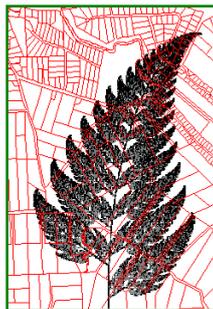
## Volume 1 of 3 - Strategy Plan

Prepared by:

M.B. Kingston, J.W. Turnbull and P.W. Hall

for

Tweed Shire Council



## Ecograph

**Ecological and Geographical  
Information Systems Consultants**

Limpinwood Valley Road LIMPINWOOD  
via MURWILLUMBAH NSW 2484

AUSTRALIA

Ph: 02 66793479 FAX: 02 66793419

Email: [info@ecograph.com.au](mailto:info@ecograph.com.au)

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Paul Hopkins	Caldera Environment Centre/ Tyalgum Landcare
Bruce Hungerford	Department of Infrastructure, Planning and Natural Resources
Henry James	Councillor -Tweed Shire Council
Rhonda James	Northern Rivers Catchment Management Board/ Koala Rescue Unit
Douglas Jardine	Manager, Strategic Planning Unit – Tweed Shire Council
Graham Judge	Project Coordinator - Tweed Shire Council
Mark Kingston	Ecograph
David Lovell	Richmond Regional Vegetation Committee/ Forestry
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Kate McKenzie	Landcare
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## Acronyms

ABS	Australian Bureau of Statistics
AKF	Australian Koala Foundation
AMG	Australian Map Grid
CAMBA	China Australia Migratory Bird Agreement
CAR	Comprehensive, Adequate and Representative reserve system
CBD	Central Business District
CD	Compact Disc
CMA	Catchment Management Authority
CRA	Comprehensive Regional Assessment
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DCDB	Digital Cadastral Data Base
DCP	Development Control Plan
DEC	Department of Environment and Conservation
DIPNR	Department of Infrastructure, Planning and Natural Resources
DLWC	Department of Land and Water Conservation (now DIPNR)
EPA Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
ESD	Ecologically Sustainable Development
FM Act	Fisheries Management Act 1994
GIS	Geographic Information System
GPS	Global Positioning System
GRP	Gross Regional Product
HCV	High Conservation Value
ISG	Integrated survey Grid
JAMBA	Japan Australia Migratory Bird Agreement
KHC	Key Habitats and Corridors project (Scotts <i>et al.</i> 2000)
KPOM	Koala Plan of Management
LEP	Local Environmental Plan
LG Act	Local Government Act 1993
LGA	Local Government Area
NPWS	National Parks and Wildlife Service (now DEC)
NRAC	Natural Resources Audit Council
NRCMB	Northern Rivers Catchment Management Board
NV Act	Native Vegetation Act 2003
NVC Act	Native Vegetation Conservation Act 1997
PVP	Property Vegetation Plan
R&E	Rare and Endangered
REP	Regional Environmental Plans
ROTAP	Rare or Threatened Australian Plants; Briggs & Leigh (1995)
RVC	Regional Vegetation Committee
RVMP	Regional Vegetation management Plan
SEPP	State Environmental Planning Policies
SIS	Species Impact Statement
SOE	State Of Environment

TAFE	Technical And Further Education
TBCCC	Tweed Brunswick Care Coordinating Committee
TBLALC	Tweed Byron Local Aboriginal Land Council
TPO	Tree Preservation Order
TRC	Tweed River Committee
TSC Act	Threatened species Conservation Act 1995
TVMP99	Tweed Vegetation Management Plan 1999; Kingston <i>et al.</i> (1999)
UNE	Upper North East NSW biogeographic region
VAT	Value Attribute Table
VCA	Voluntary Conservation Agreement

## *Executive Summary*

This project was initiated in 1998 by the introduction of the Native Vegetation Conservation Act (1997; NVC Act), which provided a number of opportunities to streamline planning and management of native vegetation. At that time administrative functions were divided among numerous consent authorities such as Council, Department of Land and Water Conservation (now Department of Infrastructure, Planning and Natural Resources, DIPNR) and National Parks and Wildlife Service (now Department of Environment and Conservation, DEC), and the potential for confusion among agencies and landholders was high. To address this issue Council resolved to prepare a Local Environmental Plan (LEP) which would replace the provisions of the NVC Act within the Tweed Shire. This approach had not been taken elsewhere in the State, however Council had already initiated work on a more generic Vegetation Management Plan (Tweed Vegetation Management Plan 1999; TVMP99) which involved detailed vegetation mapping, assessment of ecological values, and recommendations covering a wide range of Council interests including changes to the Local Environmental Plan (LEP). To address the NVC Act further work was needed in a few specific areas (i.e. updating of the ecological assessment in the light of new information on the status of the natural areas, matters related to soil and water resources and social and economic considerations). This work was completed, however in December 2003 the State Government introduced a series of natural resource management reforms, which would replace the NVC Act. These included the Native Vegetation Act (NV Act) and the advent of Catchment Management Authorities. Under these circumstances it was decided to collate the background data and analyses as an environmental study (this Strategy) to integrate the Tweed LEP 2000 with the NV Act.

This Strategy has been prepared in close consultation with the community-based Tweed Vegetation Management Plan Steering Committee to provide a coordinated approach to the management of ecological processes in the Tweed.

Tweed Shire lies within a biogeographic region recognised, as one of Australia's most diverse in terms of its natural terrain, flora and fauna. The Shire is considered an area of high conservation significance at all levels; local, regional, national and international. It is also an area of high population growth – a fact that inevitably puts pressure on natural habitats and those charged with their management.

Update of the mapping carried for the TVMP99 indicated that about half (52%) of the Shire is covered by bushland of one sort or another. National Parks account for 16 % of the Shire. About 44% (over 48000ha) of the remaining area is mapped as bushland, most of which consists of sclerophyll forests. Rainforests and related communities account for approximately 15% (10568ha) of mapped bushland. Smaller proportions of heathlands, sedgeland, estuarine vegetation, paperbark swamp and other rare vegetation communities are mapped along the coast. The mapping indicates that native plant communities of the Shire have been heavily cleared and modified in almost all lowland and coastal areas. The exotic tree, Camphor Laurel (*Cinnamomum camphora*) was dominant or codominant in over 13% of all bushland surveyed for its presence.

In order to make an informed assessment of the conservation status of natural areas within the Shire, a number of major areas of investigation were addressed:

- Ecological;
- Soil, Water and Geological;
- Socio-economic and Cultural Heritage (including Aboriginal values);
- Planning Assessment (including concurrent issues such as scenic landscape values);
- Management and Rehabilitation Framework;
- Strategic Directions and Implementation Framework.

The **ecological assessment** was designed to interpret the values of mapped bushland areas of the Shire, and focused on three major themes: *Ecological Status*, *Ecological Sensitivity* and *Threatened Species*. Assessment of the first two of these themes involved detailed mapping and spatial modelling using a Geographical Information System (GIS). To determine Ecological Status, landscape attributes such as remnant size, the regional status of specific vegetation communities, connectivity and areas of key fauna habitat were combined to produce a consistent and objective Shire-wide assessment. The Ecological Status of the great majority of Tweed's remaining bushland was classified *High* or *Very High* (over 50000 hectares or about 75% of that remaining). Although the largest contiguous areas of these types occur around the National Parks of the caldera rim and Mt. Warning, significant areas also occur along the coast. Many of the coastal vegetation communities are poorly reserved and have suffered disproportionate levels of clearing. Ecological Sensitivity was assessed in a similar way, but more specifically considered ecological attributes relating to the susceptibility of bushland areas to degradation. About one third (31%) of all bushland was classified as highly susceptible to degradation. The analysis of Threatened Species involved the collation of known records and documentation of fauna habitat preferences. With over 200 significant plant species and over 100 threatened fauna, the Tweed region supports perhaps Australia's highest concentration of significant species. The Threatened Species Conservation Act (1995) identifies a number of Key

Threatening Processes that are likely to adversely affect threatened species and their habitats. These include clearing of native vegetation, inappropriate bushfire regimes, and the invasion of coastal vegetation communities by the exotic Bitou Bush.

The **assessment of soil and water resources** comprised a review of major issues affecting land degradation and water quality in Tweed Shire. Information was collated from existing sources in order to determine what the major characteristics and issues for soil and water resources are, and how vegetation management may influence the quality of these resources. It was found that the management of native vegetation through clearing controls and rehabilitation has an important role in protecting and enhancing soil and water resources. In particular, vegetation on steep and unstable lands, riparian zones, coastal dunes and acid sulphate soils should be considered a priority.

The **socio-economic evaluation** found that Tweed Shire is a rapidly urbanising centre that is moving toward further reliance on the tertiary sector for employment and regional export. Tourism is now the biggest industry. The primary and secondary sector industries appear to be in decline, and there are major economic and land-use constraints to agricultural expansion. The greatest demands for bushland are related to the provision of services and infrastructure to support the growing population. On current trends the Shire's population is expected to increase by over 25000 in the next 15 years. These demands have given rise to conflicts over the rezoning of rural land for urban purposes especially along the coast. The findings suggested that vegetation management planning provisions should be more flexible in rural areas not subject to intense development pressure to enable landowners to carry out routine land management practices. It was also suggested that given the low income base for the majority of rural land owners and the likely decreases in agricultural viability all levels of government should canvass positive incentives to assist rural and rural residential landowners to protect and manage remnant vegetation and riparian areas.

The **overview of Aboriginal values** indicated that despite major cultural disruption to the local Aboriginal community since European settlement, the region has a rich and continuing Aboriginal heritage. This heritage involves numerous significant sites and cultural practices involving natural areas. However, much of this heritage is poorly documented or restricted knowledge and it is also likely that important sites have been lost from the oral tradition. In addition, disadvantage remains and there is a wide diversity of viewpoints among the local Aboriginal community. A number of approaches were suggested to ensure adequate consideration of Aboriginal perspectives on vegetation management issues.

The aim of the **Planning Assessment** was to evaluate the level of protection provided by the current planning arrangements to remnant vegetation areas of differing ecological status. This involved a review of land use planning mechanisms used in the protection and management of natural areas, and a detailed spatial assessment (carried out for the TVMP99) which combined land use planning with ecological considerations. The results of these analyses indicated that at that time: about half of all mapped bushland (51%) was at least partially protected; about 15% was securely protected and managed and; a small but significant proportion (1.5%) had a high level of ecological importance and was likely to be threatened by development, given existing planning commitments. Most of the latter group involved bushland along the coast at Kings Forest, Cobaki, Tanglewood, Sea Ranch, Kingscliff and Uki. Recommendations were made in the TVMP99 to address some of the issues in these areas. A number of issues were raised with respect to way the current LEP regulates clearing:

- The current LEP does not acknowledge the role of other State agencies in managing vegetation, particularly the role of DIPNR and the Northern Rivers CMA under the NV Act.
- LEP clearing controls are essentially limited to Environmental Protection zones and areas covered by the Tree Preservation Order (TPO 1990).
- The 7(l) Environmental Protection (Habitat) zone and 7(d) Environmental Protection (*Scenic Escarpment*) Zone is not clearly associated with areas of high ecological value (*Status* or *Sensitivity*) and high scenic value.
- There remains a small but significant proportion of areas with high ecological status that appear to have little regulatory protection and are currently subject to intense development pressure (mostly along the coast). Efforts should be made to increase Environmental Protection zones especially along the coast where development pressure is high.
- The TPO 1990 does not protect habitat (only large trees) and its application is spatially limited. Notwithstanding it does provide a significant disincentive for pre-emptive clearing where it applies.
- The NV Act should provide significant clearing controls in non- State Protected Land.

- In areas of State Protected Land (e.g. steep land) significant exemptions continue to allow unregulated clearing (e.g. up to 2 ha per year in certain circumstances) even for areas of high ecological value. This anomaly may be rectified by the preparation of a SEPP, however these areas cover a very large proportion of the Shire's bushland.
- The Rural 1(a) zone does not reflect differences in the potential for land degradation across the landscape, particularly on steep land. Consideration should be given to LEP provisions (zones, overlays or written provisions) that more closely reflect the management needs (and clearing issues, see point above) associated with lands vulnerable to degradation. Ideally, such provisions should be consistent with the definitions of State Protected Land (i.e. steep land and prescribed streams).
- As a result of the lack of clearing controls, the current LEP does not anticipate the need for clearing exemptions associated with routine land management.
- In cases where clearing consent is required there are no clear guidelines for Council on how to address the site assessment requirements (Tweed LEP 2000, Clause 28(4)) for a development application.

Other planning issues related to vegetation management were also identified. These included necessary consideration of scenic landscape values, koala habitat protection and bushfire management.

The **Management and Rehabilitation Framework** is presented to provide some strategic direction and priorities in this area. Strategic approaches were outlined to identify ecological priorities for: 1) the recovery existing bushland areas; 2) restoration of previously cleared areas; 3) Threatened species recovery, 4) management of threatening processes and 5) education, monitoring, planning and research. In addition, it was argued that the setting of overall rehabilitation priorities is dependent on strategic opportunities such as sources of funding, the commitment and willingness of landholders, the track record of the proponents and the level of protection of the site. Thus a broad-based funding-independent approach was recommended to ensure both available opportunities and ecological priorities are maximised.

Another major component of the project has been the production of a series of interrelated **GIS databases** for inclusion into the Council's GIS system. These GIS mapping layers (and associated databases) were used to produce the maps for this report, but can also help answer complex and more specific questions related to land use planning and the management of native vegetation.

The **Strategic Directions and Implementation Framework** involved the synthesis of the technical investigations, the development of goals and objectives, and review of the available tools and mechanisms for implementation. As a result implementation strategies and options were recommended in relation to the following three strategy areas:

- ***Bushland Protection (clearing control);***
- ***Management and Rehabilitation;***
- ***Continuing Strategy Development and Review.***

Some key initiatives of the suggested implementation framework include:

*Amendments to the overall purpose and objectives of Tweed LEP 2000* – to adopt a more consistent and holistic approach to nature conservation.

*Changes to the LEP zoning controls* –Suggested changes include:

- Introduce provisions and integrate the Tweed LEP 2000 with the Native Vegetation Act 2003.
- A new rural zone to delineate steep land consistent with the State Protected Lands.
- A new environmental zone to replace current 7(a), 7(d) and 7(l) zones. This zone is intended to capture significant areas supported by detailed mapping (particularly those subject to development pressure), in public ownership, or the subject of negotiated outcomes. In general, this means that environmental zones will be strengthened along the coast and relaxed in the hinterland where most will be absorbed into the new steep land rural zone. DIPNR and the Northern Rivers CMA will deal with the majority of clearing and vegetation management issues in the rural areas of the Tweed hinterland.

- A new overlay (Catchment) map is proposed to trigger the need clearing consent. This map would identify bushland but may also be used to identify other catchment management related information (e.g. Sub-catchments, drainage, 'prescribed' streams etc). Consent to clear will depend on site values (i.e. merit-based) and guidance on the necessary criteria will be provided in a Habitat Management Development Control Plan (DCP; see below).
- Introduce new provisions to avoid unnecessary duplication when managing vegetation and assessing clearing applications by both Tweed Shire Council and other government bodies e.g. DIPNR and the Northern Rivers CMA.

Amendments to DCP 40 (Exempt and Complying Development) - to define certain types of clearing as exempt development. A wide range of exemptions will enable clearing for routine property management, emergencies, surveys, roads etc.

Preparation of a Habitat Management DCP – This DCP will provide:

- Background and resource information/mapping.
- Simple guidelines on how the planning process addresses issues habitat management on the Tweed.
- Guidelines to assist in assessments made by TSC on applications for clearing vegetation.
- Guidelines on carrying out vegetation/fauna surveys where necessary.

Preparation of a comprehensive Koala Plan of Management – Such a Plan would eliminate the need to carry out individual assessments (under SEPP 44 – Koala Habitat Protection) but more importantly would help address the cumulative impacts that continue to threaten the viability of this species on the Tweed. The Plan should also address threatening processes that require urgent attention e.g. motor vehicle strikes on koalas along Clothiers Creek Road.

Aboriginal Liaison - It is suggested that Council engage an Aboriginal Liaison Officer to help coordinate Aboriginal input into the full range of its activities.

Section 94 Contribution Plan Policy – to ensure developer contribution plans are consistent with this Strategy.

Bonus Development Rights Policy – to provide guidance and incentives for negotiated outcomes.

Rate Relief – a differential rate is recommended as an incentive for the protection and or management of lands set aside or managed primarily for nature conservation.

Environmental Levy – commonly used to facilitate management and rehabilitation programs. It is suggested that such levy would underpin the Management on Rehabilitation Framework and complement existing programs. It is expected that levy funds would be allocated on a competitive basis to proposals for planning or on-ground works consistent with defined rehabilitation and management priorities from individuals, community groups, and Council itself. This initiative may help offset regulatory controls and is an important mechanism for sharing costs throughout the community.

Appointment of an Environmental Officer to Administer the Strategy – Such an appointment is essential for all aspects of continuing Strategy development, implementation, monitoring and review (education/extension, advocacy, GIS and database maintenance, administration of management and rehabilitation initiatives, strategic planning and development assessments etc).

The Establishment of an Organisational Structure to Coordinate Financial and other Assistance for rehabilitation and management projects, preferably in conjunction with the Northern Rivers CMA.

Education and Promotion – Issues surrounding vegetation management are complex and there is an urgent need to provide promotional material to educate and inform residents of this Strategy and its approach to vegetation management in the Shire.

## 1.0 Introduction

### 1.1 Background

The native vegetation of Australia is an integral part of the landscape, with important ecological, social, cultural, scientific and economic values. Over the past decade, these values have been increasingly recognised, as has the need to properly protect and manage them. The Tweed region has a number of physical, biological, socio-economic, and demographic characteristics that indicate the acute need to anticipate and manage land uses, and other activities with the potential to adversely impact on environmental values. These include:

- a rich and diverse natural environment containing a very high proportion of faunal and floral species and habitats of local, state, national, and even international significance;
- human population growth amongst the highest in the State, with the trends expected to continue;
- changing socio-economic conditions and community attitudes and;
- well documented instances of land degradation and ongoing environmental problems.

(see relevant sections of this report for further details)

The importance of the environmental and landscape attributes of the Tweed is reflected by the high value placed on them by tourists and residents surveyed for the Tweed Tourist Strategy and the Tweed Shire 2000+ Strategic Plan. Planning documents such as the Tweed Local Environmental Plan 2000 (LEP) attempt to address community views and require ecologically sustainable land management practices to underpin all economic development.

In 1996 Council commissioned a Vegetation Management Plan with support from Greening Australia, NSW Environmental Restoration and Rehabilitation Trust and Environment Australia. This work resulted in the Tweed Vegetation Management Plan 1999 (TVMP99; Kingston *et al.* 1999) and involved detailed vegetation mapping, assessment of ecological values, and recommendations covering a wide range of Council interests including changes to the LEP.

One of the problems of managing environmental assets is the large body of relevant legislation, which continues to change. During the preparation of the TVMP99 the Native Vegetation Conservation Act 1997 (NVC Act) came into effect requiring a specific bioregional approach to the protection and management of native vegetation. In recognition of the differing needs of local government the NVC Act provides a number of pathways to achieve its objectives. Major options for Tweed Shire included the following:

1. *Ad hoc* administration of the NVC Act in parallel with Council's LEP;
2. Development of a Regional Vegetation Management Plan (RVMP) covering one or more Local Government Areas (LGA), by a committee appointed by the Minister for Land and Water Conservation; or
3. Implementation of an LEP covering a single local government area that meets the vegetation management and planning objectives of the NVC Act. Under this option the region would effectively be exempt from the provisions of the NVC Act.

In an effort to streamline the planning provisions relating to the administration of native vegetation within the Tweed Shire, Council initially resolved (16 December 1998) to pursue the third of these options. Consistent with this resolution a broad-based steering committee was formed to oversee the development of a plan to meet the objectives of the NVC Act through the development of a Local Vegetation Management Plan, which would form part of the LEP. As the TVMP99 was not specifically designed to address the NVC Act and there had been advances in assessment of conservation status resulting from the Regional Forest Agreement process there were a number of issues that needed to be addressed before exemption from the NVC Act could be sought. These outstanding issues included:

- Updating of the ecological modelling in the light of the newly available data on the status of NSW North Coast bioregion's natural areas;
- Matters relating to the conservation of soil and water resources, and of archaeologically, geologically or anthropologically sensitive or significant areas of land, as they relate to native vegetation management;
- Matters relating to the social and economic aspects of land uses as they relate to native vegetation management.

The Vegetation Management Plan Steering Committee was also restructured in accordance with NVC act and this committee sought to implement the Council resolution by building on the previous work. However, in April 2001 the Minister for the Department of Land and Water Conservation (now DIPNR) announced that due to significant and unforeseen ambiguities that this pathway (option 3 above) would not receive approval.

At this point and after discussions with DLWC (now DIPNR) the Steering Committee and Council adopted a resolution (July 2001) to prepare a Draft LEP and Draft RVMP, both of which would be informed by a Local Environmental Study in the form of this Strategy. However, due to further administrative complications relating to the operation of the NVC Act and comments arising from extensive consultations with State Agencies, it was necessary to again review the administrative options available (June 2002; see Section 5.2.1 and Appendix 16). Council resolved not to proceed with the preparation of a Draft RVMP but attempt to integrate (as far as possible) the LEP with the NVC Act.

In December 2003, recognising that there were significant problems with the operation of the NVC Act, the State Government introduced a series of natural resource management reforms, which would replace the NVC Act. These included the Native Vegetation Act (NV Act) and the advent of Catchment Management Authorities (CMA; see Vol 2 Section 5.1). The work, which had been carried out by the Vegetation Management Plan Steering Committee on this Strategy and proposed amendments to Councils LEP now, needed to be integrated with the NV Act. Council resolved accordingly in June 2004.

## 1.2 Aims and Objectives

The goals of the Tweed Vegetation Management Strategy are to:

- Encourage the protection and enhancement of regional and local native biological diversity in the Tweed by promoting ecologically sustainable management practices.
- Promote a holistic and co-ordinated planning framework in accordance with the Native Vegetation Act 2003 and the Environmental Planning and Assessment Act 1979 for the management of ecological processes and systems in the Tweed.
- Adopt a balanced and equitable approach in developing the framework that takes into account the environmental, economic, social and cultural interests of the State and the Tweed community.

The Strategy aims to:

- Identify significant natural and environmentally sensitive areas in the Tweed that require protection and management
- Identify significant issues associated with the administration and management of Tweed's remnant vegetation by local and state governments
- Identify practical mechanisms Tweed Shire Council can implement to protect and enhance Tweed's natural assets and to promote catchment management and native biodiversity
- Develop an administrative framework for integrating, as far as possible, government land use and management decisions on biodiversity and catchment management in Tweed Shire
- Accommodate economic and social considerations associated with the management of remnant vegetation in Tweed Shire.
- Promote a cooperative and integrated approach between Tweed Shire Council, relevant State government bodies and the Tweed community in achieving the above objectives
- Promote stewardship and consultation on issues related to the conservation and management of remnant vegetation
- Develop a framework for monitoring the status of remnant vegetation in Tweed Shire
- Promote native plantation forestry in appropriate locations

## 1.3 Approach

The conceptual approach to the development of this Strategy is presented diagrammatically in Figure 1.1. The approach was determined largely by legislative imperatives that were in force when this Strategy was initiated. In particular, the provisions of the NVC Act that is set to be replaced the NV Act. Other important legislative requirements involved in the development of the Strategy include numerous provisions relating to the Environmental Planning and Assessment Act 1979 and the Threatened Species Conservation Act 1995. A summary of the requirements of these and other instruments is presented in Volume 2 Chapter 5.

In order to meet legislative requirements and also to make an informed assessment of the conservation status of natural areas within the Shire, a number of major areas of investigation were considered necessary:

- Ecological
- Soil, Water and Geological
- Socio-economic and Cultural Heritage (including Aboriginal values)
- Planning Assessment (including concurrent issues such as scenic landscape values)
- Management and Rehabilitation Framework
- Strategic Directions and Implementation Framework

As noted from Figure 1-1 each of the technical assessments lead to a number of key considerations, which were used as primary inputs to the development of the recommended approach to implementation.

Significant community consultation has been carried out by the Vegetation Management Steering Committee and Council but is not documented in detail in this report. Notwithstanding, an abridged list of major consultation milestones is presented in Volume 2 Section 5.1.4.1. The directions and recommended strategies presented in this report have been strongly influenced by this consultation.

In the context of a rapidly expanding human population, and ongoing social, cultural and economic imperatives, it is crucial to identify those areas where human aspirations and conservation needs meet. Such conjunctions need not represent conflict where forward planning instruments and management policies recognise the issues involved.

This volume seeks to formulate a framework for the development of a coherent and coordinated set of vegetation management provisions. To achieve this we firstly:

1. outline the overall vision, aims and objectives as determined by the Vegetation Management Steering Committee;
2. review the findings of the technical assessments and;
3. review the strengths, weaknesses and applicability of a wide range of implementation tools.

As a result implementation strategies and options are recommended in relation to:

- **Bushland Protection (clearing control);**
- **Management and Rehabilitation; and**
- **Continuing Strategy Development and Review.**

In addition, resourcing implications and possible stakeholder impacts of policy change are outlined before priority actions are listed.

## 1.3.1 Major Areas of Investigation

### ***Ecological Assessment***

The ecological assessment was designed to interpret the values of mapped bushland areas of the Shire, and focuses on three major themes: Ecological Status, Ecological Sensitivity and Threatened Species. Assessment of the first two of these themes involves detailed mapping and spatial modelling using a Geographical Information System (GIS). To determine Ecological Status, landscape attributes such as remnant size, the regional status of specific vegetation communities, connectivity and areas of key fauna habitat are combined to produce a consistent and objective Shire-wide assessment. Ecological Sensitivity was assessed in a similar way, but more specifically considered ecological attributes relating to the susceptibility of bushland areas to degradation. The threatened species assessment involved the collation of known records and habitat preferences.

### ***Soil and Water Resources***

This assessment comprised a review of major issues affecting soil and water in Tweed Shire. Information was collated from existing sources in order to determine what the major characteristics and issues for soil and water resources are, and how vegetation management may influence the quality of these resources. The assessment included overviews of land degradation issues, river stress and water quality issues on the Tweed.

### ***Socio-economic and Cultural Assessment***

This assessment identified important economic, land-use and social considerations that may influence the demand on areas of remnant vegetation. This helps to clarify questions such as, "Is more regulation needed, and if so, where?", and thus provide guidance for the appropriate directions and strategies to be taken in the development of the Strategy. This involved:

- A brief profile of the local population and economy
- Identification of trends in the economy and land-use demands, and other important issues that may affect land use
- Identification of some major stakeholder groups and their likely concerns on changes to the current planning for protection and management of natural values
- Analysis of the previous factors to determine current and likely demands on remnant vegetation.

Volume 2 Chapter 7 is devoted to a brief overview of the Aboriginal interest in native vegetation management. As a result a number of recommendations were made to help ensure that important aboriginal cultural values are taken into account in the management of natural areas.

### ***Planning Assessment***

There is a wide range of landuse planning tools available to Local Government, which provide opportunities for vegetation management. This assessment:

- Reviewed the planning mechanisms used in the protection and management of natural areas. These included the local government statutory and non-statutory planning provisions, and regional, national and international strategies and obligations.
- Evaluated the current protection arrangements. Five categories were developed to describe the levels of protection, ranging from *Explicit Protection and Management* to *Minimal Protection*. The categories were based on attributes arranged to reflect an area's level of planning protection, and whether or not explicit management for nature conservation is intended. Priorities for protection and management were determined by examining how well protected areas are in relation to their Ecological Status (see above). Areas of highest priority had high ecological values with minimal protection.
- Identified key issues with the LEP which need to be addressed in order to provide enhanced protection, and achieve consistency with the Native Vegetation Conservation Act 1997.
- Discussed a number of other planning issues with implications for vegetation management. These include scenic landscape values, koala habitat protection and bushfire management.

## ***Management and Rehabilitation Framework***

A management and rehabilitation framework is presented to provide some strategic direction and priorities in this area. Strategic approaches were outlined to identify ecological priorities for:

- The recovery existing bushland areas
- Restoration of previously cleared areas
- Threatened species recovery
- Management of threatening processes
- Education, monitoring, planning and research.

In addition to ecological priorities it was argued that the setting of overall rehabilitation priorities is dependent on strategic opportunities such as sources of funding, the commitment and willingness of landholders, the track record of the proponents and the level of protection of the site. Thus a broad-based funding-independent approach was recommended to ensure both available opportunities and ecological priorities are maximised.

## **1.4 Study Area**

Tweed Shire covers an area of 131692 hectares, extending from Tweed Heads in the north, west to the Tweed Range and south to the Nightcap Range and Wooyung. The Study Area includes all lands within Tweed Shire. National Parks cover an area of 21221 ha (16.1% of Shire). Table 5.1 (Vol. 2) itemises the areas dedicated to various land uses within the Shire.

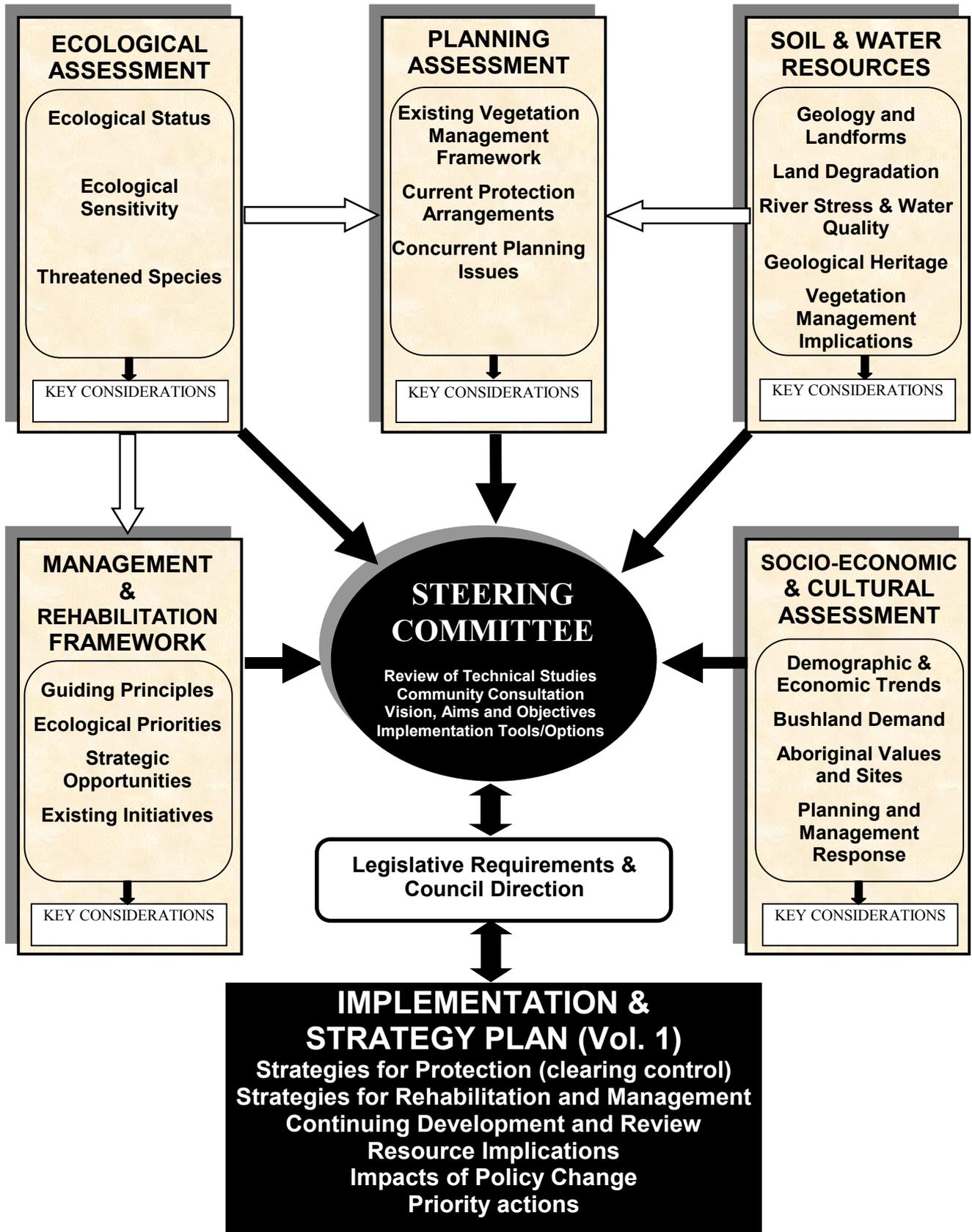


Figure 1-1 Conceptual Approach to the Development of the Tweed Vegetation Management Strategy 2004

## 2.0 Overall Vision and Objectives

As a result of a number of workshop discussions the Vegetation Management Plan Steering Committee formulated the following aims, objectives and guiding principles to guide the preparation and implementation of provisions for vegetation management planning.

### 2.1 Goal

To promote an equitable, holistic and coordinated framework for the management of ecological processes and systems in the environmental, economical, social and cultural interests of the State and Tweed community.

### 2.2 Guiding Principles

The following guiding principles should underpin the development of provisions for vegetation management planning:

- Native vegetation communities must be managed in a way that does not compromise long-term sustainability.
- The package of planning provisions should adopt a balanced approach that seeks to achieve economic development, environmental protection and an improved social condition.
- A range of land management practices can be used to maintain the biological diversity of native vegetation and wildlife habitat.
- The conservation of native vegetation should be integrated with the management of other natural resources at both local and bioregional scales.
- To manage ecological processes and systems in accordance with the principles of Ecologically Sustainable Development (ESD) as defined by the NSW Coastal Policy 1997.
- The package of planning provisions should not allow clearing without development consent where there is a risk of unacceptable environmental or cultural impact.
- Effective partnerships between the community and Government should be encouraged for the management of ecological processes and systems.
- Vegetation communities and populations should be adequately represented across the full range of conditions and areas that they naturally occur.
- The cost of protecting and enhancing native vegetation and wildlife habitats should be shared throughout the entire community by the use of appropriate incentives.
- The retention of existing significant native vegetation is generally ecologically superior to broad scale clearing and replacement.

### 2.3 Aims and Objectives

The aims and objectives developed by the Vegetation Management Plan Steering Committee are:

**Aim 1** – To promote the **protection** of native vegetation and wildlife habitat of high conservation value, social or cultural significance in Tweed Shire.

1. Identify known and potentially significant areas of bushland and wildlife habitat in Tweed Shire.
2. Assess the effectiveness of existing vegetation management framework and identify areas of potential conflict.

3. Identify known and potentially significant areas of scenic value.
4. Evaluate the social and cultural (including Aboriginal) significance of native vegetation.
5. Prepare and implement local land use planning measures (e.g. under the EPA Act) and other protocols for the protection of high conservation and scenic value, social or cultural significance.
6. Encourage the preparation of site-specific plans of management for public owned land identified as containing significant vegetation or wildlife habitat.
7. Prepare and implement an incentives scheme to protect areas of significant vegetation or wildlife habitat in the Tweed.

**Aim 2** – To encourage and promote **rehabilitation and management** of native vegetation and wildlife habitat in Tweed Shire.

1. Identify priority areas, species and processes for rehabilitation and management.
2. Prepare and implement a Rehabilitation and Management Strategy.
3. Prepare and implement an incentives scheme to encourage the implementation of the Rehabilitation and Management Strategy.
4. Encourage the preparation of best practice guidelines for the rehabilitation and management of vegetation and wildlife habitat.
5. Increase community awareness of the benefits of integrated and ecologically sustainable vegetation and wildlife habitat management and rehabilitation.
6. Encourage and promote Recovery Plans and Threat Abatement Plans prepared under the Threatened Species Conservation Act 1995.
7. Remove regulatory impediments to the establishment of native forestry plantations in appropriate locations.

**Aim 3** – To promote the protection and management of **soil and water resources**

1. Identify areas where soil and water resources are likely to be susceptible to land and water degradation.
2. Develop and implement both regulatory and voluntary measures to discourage the inappropriate use of these areas.
3. Ensure that areas susceptible to, and processes responsible for, land and water degradation are recognised in the Rehabilitation and Management Strategy.
4. Encourage the preparation of best practice guidelines for management of soil and water resources.

**Aim 4** – To recognise the **social and economic impacts** of managing vegetation

1. Review social and economic impacts associated with the management of bushland and wildlife habitat.
2. Acknowledge social and economic impacts when developing a framework for managing vegetation and wildlife habitat.
3. Monitor social and economic impacts through the activities of a joint Government and community based advisory committee.
4. Prepare and implement an incentive scheme as an economic mechanism to facilitate environmental management of bushland and wildlife habitat.

5. Increase community awareness of the benefits of integrated and ecologically sustainable vegetation and wildlife habitat management.

**Aim 5** – To promote and encourage **partnerships** between the community and governments through consultation and participation

1. Prepare and implement an incentives scheme to protect areas of significant vegetation or wildlife habitat in the Tweed.
2. Foster an attitude of trust and cooperation between Government and the community through the activities of a joint community and Government based advisory committee.
3. Actively encourage and support the input of the local Aboriginal people.

**Aim 6** – To establish and promote a framework for the **implementation, continued development and monitoring** of vegetation management and planning measures.

1. To ensure that the framework for implementing and monitoring the Strategy is consistent with the objectives of the Native Vegetation Act 2003.
2. Develop a regulatory framework within the Tweed Local Environmental Plan that clearly identifies the consent and assessment procedures for clearing of vegetation or wildlife habitat in Tweed Shire.
3. Identify or establish a joint Government and community-based committee to assist in the implementation and monitoring of the actions and provisions arising from the Tweed Vegetation Management Strategy.

## 3.0 Summary of Findings from Technical Reports (Vol. 2)

### 3.1 Ecological Values

The Ecological Status of the great majority of Tweed Shire's remaining bushland was classified *High* or *Very High* (over 50000 hectares or 85% of that remaining). Although the largest contiguous areas of these types are mountainous, significant areas occur along the coast.

Ecological Sensitivity was assessed using a similar process, but measured those components of the ecological system that are sensitive to degradation. Areas of High Sensitivity account for nearly one third (31 %) of all mapped bushland in the Study Area, and almost all the coastal areas are ranked as either High or Moderate Sensitivity.

The combination of high biodiversity and human impacts within the Shire has produced a significant number of threatened species. With over 200 significant plant species and more than 100 Threatened animal species, it is estimated that the Tweed region supports one of Australia's highest concentrations of threatened species.

Key considerations for vegetation management planning in relation to the findings of this assessment include:

- The use of the *Ecological Status* criteria and mapping to guide strategic planning for habitat protection;
- The use of the *Ecological Status* and *Sensitivity* criteria and mapping to guide priorities for management and rehabilitation actions;
- The preparation of guidelines for site assessment purposes. Site assessments should utilise both landscape (e.g. *Ecological Status* criteria) and site-based attributes (e.g. important habitat indicators for threatened species). Survey techniques also need to be specified.

### 3.2 Soil and Water Resources

This assessment indicated that most of the soil landscapes of the Tweed are susceptible to numerous types of land degradation and many of the subcatchments are environmentally stressed. The management of native vegetation through clearing controls and rehabilitation has an important role in protecting and enhancing soil and water resources. In particular vegetation on steep and unstable lands, riparian zones, coastal dunes and acid sulphate soils are a priority.

Key considerations for vegetation management planning in relation to the findings of this assessment include:

- Native vegetation on steep lands, in wetlands and Coastal dune systems should be given the highest level of protection and priority for rehabilitation;
- That DIPNR review their designation of *prescribed* streams such that all are explicitly and consistently defined, preferably by reference to scheduled maps;
- Vegetation management activities whether or not requiring consent, should be carried out in accordance with guidelines that include sound soil erosion and water management practices; and
- Council should continue to maintain an active interest in the management and rehabilitation of areas affected by acid sulphate soils.

### 3.3 Planning Assessment

Land-use planning mechanisms used in the protection and management of natural areas were reviewed. These included the local government statutory and non-statutory framework, and State, National and International strategies and obligations.

A detailed spatial assessment of the current protection arrangements was carried out for the TVMP99. This involved a review of land use planning mechanisms used in the protection and management of natural areas, and a conservation assessment which combined land use planning with ecological considerations. The results of these analyses indicated that at that time:

- Approximately half of all mapped bushland (51%) was at least partially protected;
- Over 9000 ha or 15% of mapped bushland was securely protected and managed and;
- Only a relatively small proportion of mapped bushland (1.5%) that had a high level of ecological importance is likely to be threatened by development, given existing planning commitments. Nevertheless, this area involves over 900 hectares of bushland, the most prominent of which were at Kings Forest (south of Kingscliff) and in the Cobaki area. Other ecologically significant areas included parts of Tanglewood, Sea Ranch, Kingscliff and Uki.

Major issues related to clearing controls identified for the current LEP include:

- The current LEP does not acknowledge the role of other State agencies in managing vegetation, particularly the role of DIPNR and the Northern Rivers CMA under the NV Act.
- LEP clearing controls are essentially limited to Environmental Protection zones and areas covered by the Tree Preservation Order (TPO 1990).
- The 7(l) Environmental Protection (Habitat) zone and 7(d) Environmental Protection (*Scenic Escarpment*) Zone is not clearly associated with areas of high ecological value (*Status* or *Sensitivity*) and high scenic value.
- There remains a small but significant proportion of areas with high ecological status that appear to have little regulatory protection and are currently subject to intense development pressure (mostly along the coast). Efforts should be made to increase Environmental Protection zones especially along the coast where development pressure is high.
- The TPO 1990 does not protect habitat (only large trees) and its application is spatially limited. Notwithstanding it does provide a significant disincentive for pre-emptive clearing where it applies.
- The NV Act should provide significant clearing controls in non- State Protected Land.
- In areas of State Protected Land (e.g. steep land) significant exemptions continue to allow unregulated clearing (e.g. up to 2 ha per year in certain circumstances) even for areas of high ecological value. This anomaly may be rectified by the preparation of a SEPP, however these areas cover a very large proportion of the Shire's bushland.
- The Rural 1(a) zone does not reflect differences in the potential for land degradation across the landscape, particularly on steep land. Consideration should be given to LEP provisions (zones, overlays or written provisions) that more closely reflect the management needs (and clearing issues, see point above) associated with lands vulnerable to degradation. Ideally, such provisions should be consistent with the definitions of State Protected Land category a) - Steep land.
- As a result of the lack of clearing controls, the current LEP does not anticipate the need for clearing exemptions associated with routine land management.

- In cases where clearing consent is required there are no clear guidelines for Council on how to address the site assessment requirements (Tweed LEP 2000, Clause 28(4)) for a development application.

In addition a number of other planning issues related to vegetation management were identified:

- Scenic landscape values (zoning protection for areas of high scenic value, LEP zone objectives to include scenic considerations, assessment guidelines);
- Koala habitat protection (SEPP 44; preparation of Comprehensive Koala plan of Management, further work in hinterland areas); and
- Bushfire management (considerations where consent is required for bushfire hazard reduction works).

### 3.4 Social, Economic and Cultural Considerations

The socio-economic evaluation found that Tweed Shire is a rapidly urbanising centre that is moving toward further reliance on the tertiary sector for employment and regional export. Tourism is now the biggest industry. The primary and secondary sector industries appear to be in decline, and there are major economic and land-use constraints to agricultural expansion. The greatest demands for bushland are related to the provision of services and infrastructure to support the growing population. On current trends the Shire's population is expected to increase by over 25000 in the next 15 years. These demands have given rise to conflicts over the rezoning of rural land for urban purposes especially along the coast. The relative decline in rural industry has facilitated a shift in towards rural residential land uses in the Shire.

Key socio-economic considerations for implementation include the need for:

- Vegetation management planning provisions to recognise the difference between urban (and peri-urban) and rural land uses; clearing provisions in rural areas that are not under development pressure (coastal areas) should be more flexible to enable land owners to carry out routine land management practices.
- Strategic and/or regulatory measures to protect and minimise the loss of natural habitat within areas subject to pressure for urban expansion, particularly along the Tweed coast.
- Given the low income base for the majority of rural land owners and the likely decreases in agricultural viability all levels of government should canvass positive incentives to assist rural and rural residential landowners to protect and manage remnant vegetation and riparian areas.
- Further assessment of any socio-economic impacts should be addressed once a *preferred* package of vegetation management provisions has been formulated and presented to the public for comment, including incentives. The nature and scope of any such an assessment should depend on both the extent and nature of public submissions. Any impacts should be measured against the clearing provisions in place at the time of the proposed change.

The overview of Aboriginal values indicated that despite major cultural disruption to the local Aboriginal community since European settlement, the region has a rich and continuing Aboriginal heritage. This heritage involves numerous significant sites and cultural practices involving natural areas. However, much of this heritage is poorly documented, restricted knowledge and it is also likely that important sites have been lost from the oral tradition. In addition, the disadvantage remains and there is a wide diversity of viewpoints among the local Aboriginal community.

Suggested approaches to ensure adequate consideration of Aboriginal perspectives on vegetation management issues include the following:

- Council employs an Aboriginal Liaison Officer to help coordinate Aboriginal input into the full range of its activities. (e.g. community health, land use planning, natural resource management, education, arts and cultural exchange etc.). Such an appointment would be responsible for seeking input from all sectors of the Aboriginal community. If this is not feasible Council should approach the Tweed Byron

Local Aboriginal Land Council with a view to establishing a protocol for Aboriginal input into Development Applications involving clearing of bushland.

- Vegetation Management Steering Committee (or its successor) should continue to seek participation from the Aboriginal community on matters of vegetation management. Such participation need not involve regular attendance at committee meetings but an open invitation should remain.
- Potential impacts on Aboriginal cultural values should be included as a “matter for consideration” for Development Applications involving the clearing of bushland. Such impacts should extend beyond direct impact on significant sites and relics to include impacts on contemporary Aboriginal cultural practices.
- Important known sites of Aboriginal significance should be identified and protected by zoning or schedule in the Local Environmental Plan (LEP). The Aboriginal community should be consulted on the inclusion and extent of individual sites.
- Vegetation clearing by local Aboriginal peoples for the purpose of traditional Aboriginal cultural uses should be exempt from the need for development consent.

### **3.5 Management and Rehabilitation Framework**

This framework attempts to maximise ecological benefits, while recognising strategic opportunities. Ecological priorities were determined across a range of areas: existing bushland; potential habitat areas; species-based recovery; management of threatening processes and; education, monitoring, planning and research. Strategic opportunities included factors such as: sources and requirements for funding; commitment and willingness of the proponent, track record, resources available, security of the site and; strategic position.

Suggested directions for implementation included:

- Endorsement by Council, DEC and the DIPNR as an appropriate basis for determining, prioritising and evaluating proposals for rehabilitation and management works.
- A Council-funded package of positive financial (or in kind) incentives.
- The establishment of an organisational structure to coordinate financial and other assistance for rehabilitation and management projects, preferably in conjunction with the Northern Rivers CMA.
- Encouragement of further education, planning, monitoring and research and the provision of extension services to residents.
- Investigation of the use of Council and State owned land for rehabilitation.
- Encouragement of native plantation forests particularly where designed to yield high value timber products or to sequester carbon from the atmosphere.
- Locally appropriate strategies for the control of major environmental weeds.
- DEC to continue as the lead agency responsible for species recovery planning in the region.
- Council initiated vegetation planning and management provisions to promote the abatement of threatening processes at the local level.

## 4.0 Implementation Tools

Young *et al.* (1996) identify five major types of policy instrument employed in biodiversity conservation:

- Motivational and education instruments;
- Voluntary instruments;
- Property right instruments;
- Price-based instruments; and
- Regulatory instruments.

These measures and suggestions on the circumstances in which they may be appropriate are described in further detail below.

### 4.1 Motivational and Educational Instruments

Motivation, information and education incentives should form an important and continuing component of the habitat management and rehabilitation strategy for the Shire. Education and information are fundamentally important in changing attitudes and influencing community values. If people are positively motivated and persuaded that biodiversity conservation is worthwhile they are more likely to respond constructively to the range of instruments implemented to meet this end (Bell *et al.* 1999).

A major recurring theme emerging from community consultation is that education and community ownership of voluntary initiatives are preferred to more regulatory approaches. Furthermore, education and provision of information is best achieved through active learning, such as extension, demonstration and participation in programs, with a focus on issues that are locally relevant that participants can easily relate to. Written information is, in general, less effective, unless it is used as a back up for more active educational techniques. The design of educational programs are very important, and programs for attitude change must be aware of the perceptions, knowledge and moral characteristics of the target audience (Young *et al.* 1999). Providing acknowledgment of successful management through awards and other forms of recognition can reinforce these initiatives.

Council, in association with other stakeholders, could develop an education and training program in bushland management and rehabilitation as a key component of their implementation policy. Education can also be community-based. Community organisations can provide cost-effective training that can be customised to meet specific requirements.

Education and training of all Council and contract workers to minimise potential damage to native vegetation in the carrying out of works and maintenance is an often overlooked but important part of bushland management and protection.

Training days in bushland management and rehabilitation techniques provide the opportunity for those involved in bushland management to come together and discuss ideas, as well as upgrading their skills and effectiveness. Training programs also provide a forum where regional approaches can be developed through cooperation with neighbouring regions. These could be implemented through programs such as Bushcare, and delivered to the community and Council staff collectively.

Examples of "active" education include:

- Workshops, meetings and seminars to explain and discuss issues with landholders, perhaps facilitated by a guest speaker with a rural background who has a good understanding of conservation and how it fits into conventional agriculture to increase its sustainability.
- Field days and farm walks to demonstrate adequate case studies of good management and benefits it can bring.

- Undertaking demonstration projects, in partnership with other community groups, on land rehabilitation (perhaps in partnership with catchment committees and other community groups).
- Acknowledging and rewarding landholder efforts, and promoting landholder initiative to others through the funding of demonstration projects.
- Provision of locally relevant fact sheets and demonstration videos.
- Preparation of an educational kit for schools and other educational establishments on remnant bushland and its management in Tweed Shire.

Council should also undertake the following:

- Provide free advice to landholders and catchment committees and give access to Council information on vegetation management topics.
- Employ environmental specialists to assist landowners, development proponents and Council staff in resolving nature conservation issues, and provide an educational role.
- Train professional staff to anticipate, understand, assess and deal with ecological management issues arising from the exercise of Council functions. These issues may include:
  - Invasion of environmental weeds following disturbance;
  - Ecological fire management;
  - Methods for managing introduced fauna;
  - General rehabilitation techniques;
  - Interpretation of ecological information and management strategies such as this;
  - Interpretation and application of associated regulatory instruments.
- Train works staff and contractors in vegetation management to minimise damage.

Training and technical support may also be linked to financial incentives (e.g. training a requirement for participants in a rate rebate program). A sustainable, well-administered program requires commitment in terms of funding, council resources and partnership with other agencies; examples include Ku-ring-gai Council's Bushcare program and Ipswich Shire Council's bushland education and awareness program. Staff trained in conservation management and as field liaison officers are usually required to implement the training schemes.

## **4.2 Property Management Planning, Partnerships and Voluntary Conservation**

Voluntary instruments are the key to increasing the number of areas that are under protection, management and rehabilitation.

Key issues underpinning the success of voluntary programs are:

- The need to increase community understanding of the values of biodiversity (including remnant vegetation). This includes its contribution to economic profitability and quality of life. Lack of understanding of the issues results in low motivation.
- Education and provision of information is best achieved through active learning, such as extension, demonstration and participation in programs. Written information is less effective.
- Management and rehabilitation needs to be driven by local / regional community groups that have a common local interest. A moderate to high level of control over the conservation initiatives is essential for providing a sense of ownership of the actions and outcomes.

- Financial backing is essential, particularly in rural areas (See further details in Section 5.1).
- Existing structures should be used where possible rather than creating new structures (committees, groups, etc.).

#### **4.2.1.1 Property Management Planning / Farm Planning**

This is a method of planning conducted at the property level to help managers identify how different aspects of farm management; personal, physical and financial interact. The goal is to integrate management of native vegetation into the wider farm management context, and adopt practices that lead to improved value and condition of native vegetation, sustainable production, financial security and personal satisfaction. For several years, Farm Planning has formed the basis of Landcare and programs such as Farming for the Future. The farm plan is used as the basis for planning and prioritising future developments and improvements, and negotiating possible property agreements.

Because of the emphasis placed on integrated planning with this mechanism, it should be strongly advocated. Furthermore, it should be promoted in conjunction with a number of other voluntary conservation initiatives such as Voluntary Conservation Agreements and Best Practice Guidelines to achieve maximum ecological benefits and conservation planning outcomes.

It is highly appropriate for all categories of rural bushland particularly those that fall under one or more of the ecological priorities for existing bushland (see Vol. 2 Chapter 3). The particular provisions of a property management plan should aim to meet relevant management unit objectives, but there may be cases where this is not appropriate. In these situations, property management plans should attempt to provide a reasonable balance between competing interests. At least under this mechanism landholders should be aware of any compromises between economic and conservation values. In the Tweed region property management plans are probably most appropriate where there are potential competing interests that could be resolved at a property level. In general this would involve larger properties where landholders derive a significant proportion of their income from the property itself.

Property management plans can be implemented either as an unofficial tool for the landholder to manage their own interests, or as a formal plan approved by the consent authority. In the latter case, an approved plan would permit a landholder to carry out works specified without further need for consent. This sort of arrangement is ideal for serious and longer term farming enterprises that need to ensure resource security.

The NV Act makes specific provision for Property Vegetation Plans. Similar legally binding arrangements should be possible under an LEP but the exact mechanism needs to be clarified.

#### **4.2.1.2 Voluntary Conservation Agreements (VCAs)**

A Voluntary Conservation Agreement (VCA) is a joint agreement between a landholder and the Minister of the authority making the agreement and is intended to provide permanent protection for special natural, cultural and/or scientific features of an area. The agreement can be entered into by owners of freehold land, lessees of Crown Land and local councils.

In NSW, VCAs are mainly developed with the Department of Environment and Conservation (DEC) through provisions within the National Parks and Wildlife Act 1974. The terms of agreement are negotiated between the landholder and NPWS. The agreement may limit activities such as clearing of bushland, and/or require specific commitments from the landholder such as maintenance of fences. The DEC may provide assistance to the landholder in the form of fencing material, plant and animal surveys or specialist advice and other assistance. Landholders may also be eligible for rate relief (dependent on Council policy), tax deductions and support from Northern Rivers CMA.

Johnstone Shire Council in north Queensland, have VCAs that are linked to rate rebates, technical assistance and negotiated bonus development rights. They are not binding on the title of the land unless bonus development rights are involved. Although not part of council policy, Tweed Shire Council has

negotiated pre-rezoning agreements with landowners in return for land dedication and tree planting in specific conservation areas e.g. Koala Beach Estate and Black Rocks Estate.

VCA's are most appropriate in the rural areas, once again, on lands of high ecological significance and particularly those that are already constrained. However, pockets of significant bushland or wetlands could occur in the other areas, and this mechanism would be appropriate.

#### 4.2.1.3 Partnership Agreements

Partnership or Management Agreements are an agreement between an individual landholder or group of landholders, and/or other parties, whereby the landholder(s) agrees to undertake a certain course of action. Agreements are developed on an individual basis to support the management needs of individual land managers including the provision of financial and technical support. Three major kinds of Agreements are:

- **Letter of Agreement** - generally the most flexible. It represents a statement of intention to undertake specified management actions in return for a relatively minor level of support. Examples include:
  - a one-off payment (eg. from National Heritage Trust) to cover the cost of fencing;
  - provision of on-going technical advice;
  - assistance with or delivery of periodic monitoring.
- **Standard Property Agreement** - provides for management support including those available under a letter of agreement as well as more wide-reaching support arrangements. Examples include:
  - periodic payments of the proceeds of a trust fund established for the management of a piece of vegetation using money obtained from a funding source;
  - payment from an organisation which leases an area of vegetation which is to be managed for conservation purposes.
- **Registered Property Agreement** - this ensures that a Property Agreement continues with successive owners of the land, for a period stated in the agreement. Property Vegetation Plans (PVPs) under the NV Act are agreements of this type but may have a fixed duration (e.g. 15 years)

#### 4.2.1.4 Codes of Practice

Codes of Practice consist of a set of guidelines that clearly set out appropriate ways in which to carry out certain activities. These are an effective way to deal with management issues, which are too complex to be handled by a simple exemption. They should form the backbone of all voluntary, regulatory and price-based implementation options and processes, either as a condition of management, or as recommended guidelines.

The following list could be considered priority for development:

- |                       |   |
|-----------------------|---|
| Rural Areas:          | <ul style="list-style-type: none"> <li>• Clearing Guidelines;</li> <li>• Low Key Sustainable Timber Harvesting;</li> <li>• Riparian Zone Management;</li> <li>• Land Rehabilitation Techniques.</li> </ul>  |
| Urban Areas           | <ul style="list-style-type: none"> <li>• Clearing Guidelines for housing development (and other construction);</li> <li>• Urban Bushland Management and Buffer zones.</li> </ul>  |
| Rural and Urban Areas | <ul style="list-style-type: none"> <li>• Environmental Weed Control;</li> <li>• Dune stabilisation and rehabilitation of native vegetation;</li> <li>• Koala Habitat Management;</li> <li>• Bushfire Management;</li> <li>• Threatened Species Management.</li> </ul> |

DIPNR have produced a wide-ranging series of guidelines called *VegNotes* (see DIPNR web site). Many of these would be suitable for customisation to local conditions. Note that such codes should be reviewed periodically and updated as necessary with any new information, techniques or implementation options that emerge.

It is not considered necessary to make Codes of Practice mandatory in all situations, but it is suggested that some of the codes should be mandatory in the following circumstances:

- Activities involving *land clearing* (i.e. clearing beyond minimal tree-cutting or harvesting);
- As a condition associated with the provision of financial support;
- As a condition of a partnership or property agreement.

## 4.3 Property Right Instruments

### 4.3.1.1 Conservation Covenants

Conservation covenants are contractual arrangements between private landholders and public or non- government organisations that involve specific conservation practices. They contain financial incentives to enter into the agreement. For example, they could be used to limit pet ownership in sensitive areas. The Conveyancing Act 1919 allows for the creation of public positive covenant by local authorities. Typically, covenants are made at the time of development approval (i.e. subdivision), and although landholders accept the conditions they are not always totally willing participants. This can sometimes lead to difficulties with compliance.

### 4.3.1.2 Bonus Development Rights

This essentially involves rezoning, development approval or other concessions, over and above what might normally be accepted, in exchange for conservation of a given area on a contiguous landholding. In this case council brokers negotiations. Such negotiated outcomes encourage flexible, innovative and environmentally responsive design. Care is needed however, to ensure that concessions or bonuses are otherwise environmentally acceptable.

In recent years Tweed Shire Council have negotiated 'trade-offs' with developers as part of land use rezonings and development applications whereby areas of land identified with significant habitat value have been zoned environmental protection and/or dedicated to council. Examples include Koala Beach Estate, Black Rocks Estate and Pottsville Waters Estate. These trade-offs however, have been a result of *ad hoc* negotiations rather than as result of a specific council policy and criteria. Johnstone Shire Council in Queensland have a policy of offering bonus development rights in 'Rural Conservation Zones' in exchange for conservation agreements over areas of a site that have high conservation value.

This approach is most applicable to partially cleared sites with minimal planning protection but especially those with high value vegetation. Since there are relatively large areas of land within this category this mechanism would be appropriate in Tweed, however guidelines are needed.

### 4.3.1.3 Off-Set Arrangements

In this case, developers can off-set damage caused by clearing (or other activity) by either purchasing another area for protection, or by rehabilitating or paying for the rehabilitation of a degraded site elsewhere. In order to provide greater incentive such actions may be associated with bonus development rights (as noted above). In relation to rehabilitation, this approach has been used extensively in North America where it has frequently been criticised as ecologically ineffective (Young *et al.* 1996). However, the success of rehabilitation will vary between ecosystem types and the techniques used. Nevertheless, it should be recognised that there will almost always be significant uncertainty which may be amplified by the long time frames involved. In short, it is generally much more efficient to retain existing habitats than create new ones.

In relation to compensatory protection of other areas off-site there are also significant but not necessarily insurmountable problems with determining ecologically sensible trade-offs. For example, is it sensible to sacrifice a wetland for greater protection of a eucalypt open forest?

This mechanism is potentially useful within the Shire but guidelines are also needed.

#### **4.3.1.4 Transferable Development Rights**

This approach involves the creation of a market where licences to clear vegetation are limited by conservation targets and landholders are allocated clearing quotas which may be traded. Individuals wishing to clear must accumulate sufficient quotas, and in doing so will effectively conserve other areas. Young *et al.* (1996) note some major constraints to this approach in relation to clearing:

- The need to create a market in which participants can trade in equivalent units (impacts arising from clearing similar areas in different locations can vary dramatically);
- The setting of ecological targets themselves (targets would need to be conditioned on development potential as well as ecological criteria; targets also need to be flexible with respect to biological imperatives which can negate benefits arising from the operation of the market); and
- The need for significant support from regulatory, financial and administrative institutions.

### **4.4 Price-based Instruments**

Most price-based instruments would be used to provide incentives to landholders to partake in one of the voluntary or property-right instruments described above.

#### **4.4.1.1 Rate Rebates and Grants**

Rate rebates and grants provide financial recognition of the conservation efforts of landholders on behalf of the wider community. By providing a reduction in rates or a grant the landowner has agreed to maintain the land, conserve remnant vegetation or take other agreed conservation measures. The ability to achieve an effective incentives scheme involving rate rebates and grants requires ongoing finances to be made available through council's revenue base. Before embarking on long term rate rebate program council's should assess the financial implications of the ongoing liability of council to cover the cost of rate rebates. There are three main opportunities to recover the cost of rate rebates or grants:

- Differential rating whereby council increases very marginally the relative rate at which other properties are rated so as to offset the small number of properties benefiting from rebates and/or
- Council (with State government or Commonwealth government assistance) forego revenue from its rate base to directly fund a rebate scheme and/or
- Council introduce a special levy (environmental levy) to fund a rebate scheme.

In Tweed Shire there are opportunities to create sub-categories for ratings under the FARMLAND or RESIDENTIAL rating categories to offer differential rates based on conservation outcomes, linked to some management agreement. Tweed Shire Council already issues a FARMLAND rate 40 percent lower than the general rate where it can be shown that the dominant use is for farming. It could be argued that the differential rate applied to farmland for farming activities can act as a disincentive to manage land for conservation, which is not eligible for the rate rebate. It is important to set a minimum and maximum rebate because experience has shown that without setting a minimum limit for an individual property, a lot of staff time and resources can be wasted through administration, support and monitoring (Bateson 2000). In circumstances where rates are already low the introduction of a rate rebate for conservation may not provide enough incentive for most landowners to apply. It should also be noted that landowners that enter into a voluntary conservation agreement with the NSW DEC (National Parks and Wildlife Act 1974) are exempt from local governments' rate under the Local Government Act (Section 555 (b1) LGA).

An important component of a determining eligibility for rate rebates and grants for conservation is the development of criteria to help staff undertake assessment of properties that are eligible for rebates and grants. The criteria should be kept simple and targeted to obtain specific outcomes. In Tweed Shire information collected for this Strategy could assist in developing criteria. A simple method may involve rate rebates to landowners that volunteer to have their land zoned environmental protection and enter into an agreement for the management of the land. The environmental zone could also be used as one of a number of criteria to enable the land owner to obtain funding from Council via an environmental levy to assist in management and rehabilitation objectives (e.g. weed control, herbicides, fencing, seedlings, Green Corp and technical advice; see Vol. 2 Chapter 8).

Council's that have implemented rate rebate programs and grants in return for environmental benefits include:

- Melton Shire in Victoria (rate rebate for weed and animal pest control);
- Johnstone Shire Council, Queensland (rate deferrals scheme for conserving wildlife habitat);
- Cairns Shire Council, Queensland (one-off cash grant and rate refund for land with high conservation value);
- Cooloola Shire Council, Queensland (rate relief scheme for land with high conservation value and sustainable farm forestry);
- Shire of Denmark, Western Australia (funding for creek line fencing);
- Ipswich Shire Council, Queensland (Environmental Weed Control Rebate);
- Coffs Harbour City (Annual competitive tendering from individuals, Council, and community groups for project funding, assessed by community based committee on basis of State of Environment priorities. Funded by environmental levy of 0.02259% of rateable value. This averages about \$14/property and raises \$750K – \$800K per annum. This program is a major source of funding for rehabilitation and management planning and on-ground works in the region.).

Most of these programs are administered by an environmental or conservation officer.

#### **4.4.1.2 Corporate Sponsorship / Donations**

This has been implemented successfully in numerous environmental programs throughout Australia. One example is the sponsorship of habitat protection for the Orange-bellied Parrot by a major flight company, through donations of cash and materials. Corporate sponsorship enhances the sense of involvement of all sectors of society, and further strengthens willingness for partnerships between the community, the government and the private sector.

Corporate sponsors can claim deductions for cash contributions to a non-government conservation organisation listed on the Register of Environmental Organisations (Young *et al.* 1996).

This source of funding is most likely to be successful in locations that are conspicuous or associated with high profile species.

#### **4.4.1.3 Income Tax Deductions**

The existing taxation arrangements that provide an incentive for land holders to undertake Landcare activities are set out in sections 75B and 75D of the Income Tax Assessment Act 1936. Under these provisions, full deductibility in the year of expenditure is available for land degradation control. Expenditure can be claimed for:

- Controlling pests and weeds;
- Fencing out degraded areas;

- Fencing out areas identified in an approved management plan;
- Building levee banks and drainage works necessary to address land degradation problems.

(Young *et al.* 1996).

Tax concessions could be used for management undertaken as part of a Property Management Plan.

## 4.5 Regulatory Mechanisms

Under the current planning framework there are a number of regulatory mechanisms available. Details of specific instruments are provided in Volume 2 Chapter 5. Cripps *et al.* (1999) provides a comprehensive review on the matter. It is important to note that regulatory controls commonly operate at different scales (e.g. National, State, regional or catchment-wide, LGA-wide, site specific etc) and may include more than one legislative authority.

It should be noted that regulatory tools are notoriously unpopular, especially in rural areas. An enforcement approach tends to alienate landholders, who often already feel that a disproportionate burden of land management lies with them. Any regulatory control in these areas needs to be precisely targeted to areas vulnerable to, or activities likely to result in unacceptable environmental impacts. In rural areas, however there is a relatively widespread acceptance of the need to protect vegetation in areas where there are major environmental constraints (e.g. steep lands) and at least in-principle acceptance of the idea that habitats of high value (without such constraints) should be retained.

Given the predicted high level of threat to urban bushlands, their generally high ecological status and pro-conservation community values, many of these areas should be considered as candidates for enhanced regulatory control.

Some important legislative mechanisms relative to vegetation management are outlined under the headings below.

### 4.5.1.1 Development Control

This is the process by which Council (or other relevant authority) will make specific development decisions by assessing a proposal (Development Application) against the provisions or directions contained within relevant environmental planning instruments. Important instruments include:

- State Environmental Planning Policies (e.g. SEPP 14 Coastal Wetlands, SEPP 26 Littoral Rainforest, SEPP 44 Koala Habitat);
- Councils LEP (Zone controls, TPO 1990, DCPs, designated development, Part 5 approvals etc.);
- Native Vegetation Act 2003 (exemptions, exclusions, State Protected Lands, clearing provisions and regulations, and property vegetation plans);
- Threatened Species Conservation Act (8 part test, SIS requirements etc).

### 4.5.1.2 Rezoning

Through the process of developing an LEP, Council makes decisions on preferred land uses for various areas (zones). If there appears to be adequate reason or need, the zoning definitions can be amended. Such amendments can take the form of changes to zone boundaries or definitions of permissible landuses. For example, Council could undertake a review of land to identify areas of high conservation values that are not adequately protected. Due to the fact that land use zones are expected to be community response to optimal land use (which must take account of social and environmental impacts) there are effectively no provisions for compensation due to so-called "back zoning". Nevertheless, rezonings on environmental grounds are often controversial and as a consequence rarely used.

It should be noted that zoning controls are not confined to council LEPs. State Protected Lands provisions, and SEPPs 14 and 26 are also effectively zonal controls as they seek to impose landuse control over specific mapped areas. Zoning controls could also be implemented within a Regional Vegetation Management Plan.

#### **4.5.1.3 Developer Contributions**

The EPA Act contains special provisions that enable Council to impose conditions on developers as part of their development to dedicate land or make monetary contributions to Council for providing or increasing "public amenities" or "public services" which can include land acquisition and embellishment of public open space. See Volume 2 Section 5.1.1.1 – Section 94 Developer Contribution Plans for further details.

#### **4.5.1.4 Local Laws**

Local laws are a strong regulatory approach that can be used to protect significant vegetation or vegetation values. One example is the Tree Preservation Order (TPO). It provides power to the regulatory body (in this case, local council) to enforce the protection of an area through stop work orders and penalties such as fines. Provisions associated with them can also guarantee appropriate management of the site(s).

In relation to Tweed it is noted that the TPO 1990 application is limited to designated urban areas (see Vol. 2 Section 5.1.1.1– Local Environmental Plans). Where it applies the TPO is a significant deterrent to pre-emptive tree clearing, however it does not extend to native vegetation other than large trees. Examples of vegetation not protected include understorey species, non-forested wetlands, heathlands, dunal vegetation etc.

#### **4.5.1.5 Acquisition**

The purchasing of land possibly funded by general rates, environmental levies, philanthropic donations, and/or developer contributions. This mechanism is used widely in Queensland where it is more difficult to control land use. In general, this option is expensive and better value can often be achieved by providing management incentives to landholders.

A more cost-effective variation on this theme can in some jurisdictions be achieved by purchase with subsequent rezoning (or other mechanism such as a covenant on the title deed) followed by resale. This approach is most suitable for small areas of urban bushland or larger rural blocks. However, according to Cripps *et al.* (1999) this appears to be problematic in NSW since it would require a specific function related to vegetation management to be conferred on council through the Local Government Act 1993.

If acquisition is considered a viable priority, tools need to be developed to facilitate optimal purchases. Obviously, Ecological Status would need to be considered as a key criterion. However, it needs to be recognised that the Ecological Status criteria specified in Volume 2 Chapter 3 do not account for specific site conditions. In particular, vegetation condition is not currently known for all areas, and the presence or absence of conditions likely to support Threatened species are not mapped.

### **4.6 Determining the Policy Mix**

A major report to the Biodiversity Unit of the Commonwealth Government (Young *et al.* 1996) investigated approaches to the conservation of biodiversity through reviews and workshops across Australia. It involved key stakeholder groups from various resource use sectors, non-government conservation organisations, state conservation agencies and public servants from Commonwealth and State agencies involved with nature conservation and biodiversity policy.

The authors concluded that in almost all situations, a mix of instruments would be more effective than a single policy approach. They argued that all instruments have strengths and weaknesses, and that no one approach, regardless of how well drafted and implemented, would be sufficiently flexible to address all the contexts relevant to ecological, social, economic and institutional issues.

Key elements to be used in determining an appropriate policy mix include:

- Preferentially using instruments that motivate communities and industry to conserve biodiversity;
- Preferentially using less interventionist instruments;
- Preferentially using financially attractive instrument mixes for people asked to conserve biodiversity on their property;
- Seeking to reduce underlying causes of threats - such as market failure, incompletely specified property-right structures etc.;
- Using precautionary standards and regulations to increase the effectiveness of other instruments;
- Using regulation as a safety net to underpin most incentive packages and prevent irreversible loss;
- Providing education and communication so that the community understands the need for conservation and that there are avenues through which to achieve this, including financial backing;
- Providing adequate funding for education and information as a priority;
- Prioritising programs / campaigns that promise greatest motivational change at least cost, because funding is finite.

In addition, the following key elements are vital to the success of instrument development and implementation:

- A high level of coordination and integration across all levels of government and between agencies (to avoid confusion arising from different information and demands by various agencies);
- A cooperative atmosphere, where local government has a strong role and a good relationship with the community;
- Targeting of appropriate mechanisms to suit circumstances;
- Flexibility in approaches to program content, funding, management and funding.

On the issue of compensation, Young et al. (1996) provide the following advice:

*As most property ownership embodies a speculative dimension, compensation for the loss of a private land development option should be used only as a transitional measure when absolutely necessary to obtain community acceptance of a change in property rights. When compensation is paid it should be associated with a clear change in property rights guaranteeing the protection of biodiversity values in perpetuity via a conservation covenant or other similar mechanism.*

*The guideline is that where compensation is necessary, it should only be offered for a transition period as an equitable means of bringing about a rapid and irreversible transition. Administrative costs may be less if the initial policy change is accompanied by a plan to diminish the proportion of compensation payable by, say, 20% per annum.*

## 5.0 Strategies and Options for Protection (Clearing Control)

### 5.1 General Approach

The issue of clearing consent is one that must be addressed as part of the vegetation management planning process.

Under the NV Act *clearing* means any one or more of the following:

- cutting down, felling, thinning, logging or removing native vegetation,
- killing, destroying, poisoning, ringbarking, uprooting or burning native vegetation,
- severing, topping or lopping branches, limbs, stems or trunks of native vegetation,
- substantially damaging or injuring native vegetation in any other way.

It is noted that this definition encompasses a wide range of activities, many of which are unlikely to result in unacceptable impacts to the environment. It is clearly necessary to provide guidelines on what are acceptable levels of clearing, in particular areas.

One way to achieve this is to define thresholds for particular activities that involve *clearing* as defined above. At one end of the scale thresholds can be defined below which no consent is required (*Exemptions*). At the other end of the scale it is reasonable to expect that large-scale proposals affecting valuable ecological assets should require consent. This is the case under current operation of the NVC Act – clearing exceeding certain thresholds requires consent (see Vol. 2 Section 5.1.1.3). The current LEP also contains some provisions (see Vol. 2 Section 5.1.1.1) to ensure that environmental impacts, including those associated with the removal of native vegetation, are contained.

Typically such provisions rely on a combination of written and zonal provisions. Written provisions often need to be complex to ensure that relevant activities are precisely specified and the provisions appropriately targeted. Zonal provisions allow landholders to quickly assess whether or not particular provisions affect them. Zoning however has significant drawbacks where the object of the provision is not easily or precisely defined (mapped) or changes over relatively short time-frames.

The challenge for effective implementation is to deliver a system that captures environmentally destructive and unacceptable activities without placing unnecessary administrative burdens and constraints on landholders or the community. For a regulatory framework, this essentially means finding the appropriate balance between written provisions and zoning but is also fundamentally affected by the flexibility of regulatory options available. Unfortunately there are numerous administrative and legal issues relating to the issue of clearing that have been, and continue to be problematic. Most of these issues relate to the relationship between the NVC, NV, EPA and TSC Acts, the Consent Authority (DIPNR or CMA, Council, DEC, more than one, all, and in what circumstances), and the nature of any exemptions.

Putting aside consideration of the specific options available under these acts (see below) a general approach to balancing written and zoning provisions was also suggested by the consideration of a number of other factors:

1. The strong spatial relationship between the presence of bushland and areas susceptible to land degradation (i.e. steep land and riparian areas) suggested that zoning based on these areas would capture the vast majority of the Shire's bushland, would address land degradation potential and also be consistent with and complement the currently declared State Protected lands. Also unlike zoning based on bushland itself which changes over relatively short time frames, zoning based static attributes such as slope should not need alteration over the life of the planning instrument. Clearing in bushland outside of these areas would need to be addressed by other means although the NV Act should adequately address clearing in "non-protected" rural areas.
2. Differences in the quality of the vegetation typing, and the ecological fact that such boundaries are rarely discrete also suggested that attempts to zone areas on the basis of such "boundaries" may not reflect on-ground conditions. This was particularly the case in the western areas of the Shire where field verification often relied solely on the interpretation of aerial photography. On the other hand, most of the coastal lowlands have been relatively well sampled and due to hydrological influences, the boundaries between vegetation communities are usually more discrete. In addition, most of the development pressures, and the potential for loss was known to be highest toward the coast. The combination of these observations suggested that a prudent approach would be to

provide greater flexibility in the rural areas away from the coast and at the same time target the explicit protection (e.g. via environmental zones) to ecologically significant areas likely to be subject to increased development pressure.

Given these factors a range of **regulatory** and **non-regulatory** measures are suggested below to protect natural areas of the Tweed. Strategies for rehabilitation and management are addressed separately (Section 6.0).

## 5.2 Regulatory Strategies for Protection

In addition to issues associated with the mapping, complications arising from the interaction of numerous Acts have also made a major contribution to the nature of the suggested regulatory framework. A large number of administrative options have been considered since 1998. These are briefly outlined below before a preferred regulatory framework is advanced.

### 5.2.1 Administrative Options

As noted previously (Section 1.1) the search for workable administrative options for the implementation of provisions for vegetation management has a long history. This search included the following key milestones. Appendix 16 provides a detailed description of the options considered from September 2001.

1. **December 1998** –Implementation of an LEP covering a single local government area to meet the vegetation management and planning objectives of the NVC Act. Under this option the region would effectively be excluded from the provisions of the NVC Act. This option was anticipated by the NVC Act and appeared to best suit the needs of Tweed Shire which contained the entire Tweed catchment, had already made substantial progress in consideration of the relevant issues, and was also involved with complex planning issues related to intense population pressure and changing land uses. Other options under consideration at this time were reviewed in a discussion paper prepared by the Tweed Shire Council Strategic Planning Unit (see Appendix 11 of the TVMP99). However, in April 2001 the Minister for the Department of Land and Water Conservation (DLWC; now DIPNR) announced that due to significant and unforeseen ambiguities that this pathway would not receive approval at this time.
2. **September 2001** – Council advises the Department of Land and Water Conservation (now DIPNR) of its intention of pursuing the following option:
  1. *Council resolves to prepare a draft Tweed LEP (vegetation management).*
  2. *The preparation of the draft Tweed LEP will require the preparation of an environmental study consistent with the Environmental Planning and Assessment Act 1979.*
  3. *The environmental study will be represented by the Tweed Vegetation Management Plan currently being finalised by Council.*
  4. *The Vegetation Management Plan Steering Committee will assist Councils Director of Development Services in finalising the Tweed Vegetation Management Plan and the preparation of the framework for the draft Tweed LEP (Vegetation Management).*
  5. *Council invites the Director-General of the Department of Land and Water Conservation to utilise the Council's Vegetation Management Plan Steering Committee to assist the DLWC in the preparation of a Draft Tweed RVMP to ensure that the Tweed RVMP and Tweed LEP (Vegetation Management) are integrated and compliment one another.*
  6. *The terms of reference of the Vegetation Management Plan Steering Committee are amended consistent with item 4 and 5.*
  7. *Council advise the Department of Land and Water Conservation and Department of Urban Affairs and Planning of the above recommendations.*

On this basis the Steering Committee proceeded to develop a planning framework (see Appendix 16) for the preparation of an integrated draft LEP (administered by Council) and draft RVMP (administered by DLWC; now DIPNR).

3. **October 2001** – Council initiated formal consultations with State Agencies and other organisations regarding the adopted planning framework. As a result of these consultations, DLWC (now DIPNR) and NPWS (Now DEC) raised a number of major legal and policy issues for the implementation of the adopted framework (see Appendix 16).
4. **April 2002** – Council acknowledges issues raised and reconsiders options available (see Appendix 16)
5. **June 2002** – In response to this review and on the recommendation of the Vegetation Management Plan Steering Committee, Council resolved that it:
  1. *Advises the Department of Land and Water Conservation that at this stage Council does not wish to proceed with the preparation of a draft Regional Vegetation Management Plan.*
  2. *Finalises the Tweed Vegetation Management Strategy and prepares a draft Tweed Local Environmental Plan (Vegetation Management) that is integrated with the Native Vegetation Conservation Act (short term).*
  3. *Advises the Department of Land and Water Conservation that Council wishes to retain the opportunity to have either a fully integrated Local Environmental Plan for Tweed Shire (Schedule 2 of the Native Vegetation Conservation Act) or an integrated Tweed Local Environmental Plan and Regional Vegetation Management Plan as potential long-term options.*
  4. *Writes to the Minister of the Department of Land and Water Conservation to strongly request the Minister to initiate a review of the Native Vegetation Conservation Act and other relevant Acts to address legal and policy impediments that restrict Councils from being listed on Schedule 2 of the Native Vegetation Conservation Act.*
  5. *Amends the 'Terms of Reference' of the Vegetation Management Plan Steering Committee in accordance with the Recommendation 1 and 2 above.*
6. **December 2003** – Introduction of natural resource management reforms which will replace the NVC Act (i.e. NV Act , CMAs etc.; see Vol. 2 Section 5.1.1.4). The draft LEP/DCP 40 which had been based around the NVC Act now needed to be integrated with the NV Act. This would involve a recognition that most clearing in rural areas would be addressed by DIPNR and the Northern Rivers CMA. TSC would still need to maintain an interest in clearing associated with urban areas, environmental zones and State Protected Lands.

## 5.2.2 Suggested Planning Framework

**Regulatory** changes and/or review include the following:

1. **Overall purpose and objectives of Tweed LEP 2000** – to adopt a more consistent and holistic approach to nature conservation.
2. **Zoning controls** – to regulate clearing in environmentally sensitive, scenic and ecologically significant areas.
3. **DCP 40 (Exempt and Complying Development)** - to define certain types of clearing as exempt development.
4. **Development of a Habitat Management DCP** - to guide development assessment procedures and requirements.

5. ***Tree Preservation Order*** - to remove any duplication with other changes.
6. ***Aboriginal Heritage Schedule*** - to identify, recognise and protect well known sites of aboriginal significance.
7. ***Section 94 Contribution Plan Policy*** – to ensure developer contribution plans are consistent with this Strategy.
8. ***Bonus Development Rights Policy*** – to provide guidance and incentives for negotiated outcomes.
9. ***Conservation Covenants on New Development*** – to safeguard sensitive habitats from threats such as domestic pets.
10. ***Protection of Koala Habitat*** – to protect and manage vulnerable koala populations.

### **5.2.2.1 Overall Purpose and Objectives of Tweed LEP 2000**

Consistent with strategic directions outlined previously (Section 2.0) it is suggested that the purpose and objectives of the LEP amendment include the following:

#### **Purpose of the Plan**

Establish a land use planning framework:

- that adopts a holistic and equitable approach for managing ecological processes and significant natural areas in Tweed Shire, and that seeks to achieve environmental protection, economic development and improved social and cultural conditions;
- to conserve, and enhance biological diversity, scenic quality and ecological integrity of the natural areas of Tweed Shire;
- that implements the Tweed Vegetation Management Strategy 2004.

#### **Objectives of the Plan**

- to identify potentially significant natural areas and steep land in Tweed Shire and introduce planning controls to avoid potential adverse environmental impacts;
- to identify and protect natural areas with high ecological, scenic or cultural value, particularly within the tweed coastal area;
- to improve the condition of Tweed Shire's natural assets;
- to streamline the ability for land managers to undertake routine land management practices that are likely to have minimal adverse environmental impact;
- to avoid the risk to life and property from the threat of bush fire.

### **5.2.2.2 Zoning Controls**

Three major changes are suggested to the current zoning controls:

- Creation of a new zone - Rural 1(a1) (Steep Land/Escarpment) Zone;
- Creation of a new zone - Environmental Protection 7(a) (Significant Vegetation / Wildlife Habitat) Zone;
- Creation of a new overlay map – Catchment Map – clause 26.

### ***Rural 1(a1) (Steep Land/Escarpment) Zone***

This zone will delineate steep land (>18 degrees slope) based on the State Protected Lands mapping (category (a)) under the Native Vegetation Conservation Act 1997. A large proportion of Tweed's bushland is on land greater than 18 degrees slope. These areas are potentially prone to land degradation as a result of increased potential for soil erosion, soil slip and other mass movement.

The objectives of the 1(a1) zone should focus on minimising land degradation and impacts on significant natural areas and wildlife habitat and scenic landscape value.

Clearing exemptions (see notes on DCP 40 below) will be needed to enable continuation of routine land management practices such as weed control, erecting and maintaining boundary fences, bushfire hazard management and maintenance and access to rural structures.

In these areas, site assessment of bushland (identified by the 'Bushland Overlay' on the Catchment Map; see below) should occur when and if a landowner wishes to clear vegetation not covered by an exemption (DCP 40 or NV Act). Site Assessment will be based on merit in accordance with the guidelines provided by the Habitat Management DCP (see below). This merit-based approach has been taken due to the fact that the current mapping does not always reflect site conditions relevant to management actions (i.e. mapping inaccuracy and/or lack of knowledge of fine-scale attributes such as threatened species habitat). This zone will replace substantial areas currently zoned Rural 1(a) or Environmental Protection (7(l) Habitat, 7(d) Scenic Escarpment). It is expected that the assessment procedures will effectively prevent clearing in areas of high ecological value.

Note that where the Northern Rivers CMA has approved vegetation clearing under the Native Vegetation Act, Council consent for clearing vegetation will not be required. Applicants should be encouraged to consult with the CMA or Council to determine who is the consent authority for clearing vegetation.

### ***7(a) Environmental Protection (Significant Vegetation / Wildlife Habitat) Zone***

This zone should identify and protect natural areas:

- ***Subject to high development pressure supported by detailed mapping*** (mostly along the Coast; also includes areas where council and developer has undertaken detailed studies to delineate significant bushland in negotiation with TSC etc. e.g. Koala Beach, Black Rocks, Cobaki, Kings Beach, Kings Forest, Doug Davidson etc);
- ***With significant ecological values in public ownership*** (e.g. Mt Nullum, Pottsville Environmental Park, Clarrie Hall dam site and Byrrill Creek Dam Site);
- ***Already protected by other planning mechanisms*** (SEPPs, VCAs etc);
- ***With significant ecological values supported by detailed mapping*** (mostly along the Coast).

This zone will replace the current 7(a), 7(d) and 7(l) Zone under Tweed LEP 2000. Land use provisions should be strongly focused on wildlife conservation, maintaining ecosystem processes and scenic value.

Consent from Council should be required to clear vegetation within this zone under clause 25 of Tweed LEP 2000 (except for minor clearing exemptions listed under DCP 40; see below) if consent for the clearing is not required under the Native Vegetation Act (NV Act). Note that where clearing under the NV Act has been approved, Council consent will not be required.

There is an opportunity for Council to link this zone with a local government incentive program for private land owners e.g. rate rebates, funding for rehabilitation works etc., similar to schemes introduced by other local government authorities (e.g. Gold Coast City Council conservation incentive programs).

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***New Map – Catchment Map – clause 26***

In order to ‘trigger’ the need for clearing consent it is suggested that an overlay map be incorporated into the LEP. This map would identify Bushland as defined in this Strategy (see Vol. 2 Section 1.1) but may also be used to identify other catchment management related information (e.g. Sub-catchments, drainage, ‘prescribed’ streams etc). The use of such an overlay map is considered superior to simply zoning all bushland. This is because bushland boundaries change and will need to be reviewed periodically. Using this approach such review can be carried out without the need to amend adjacent zones. In addition, the bushland boundaries as mapped are very complex and their use as landuse zones would unnecessarily complicate the LEP maps.

It is expected that unless the clearing is covered by an exemption (DCP 40 or NV Act) then areas affected by the bushland overlay will require development consent and specific matters will need to be considered. These matters should include:

- Likely impacts of clearing on key ecological values;
- The potential for disturbance of native flora, fauna, and their habitats from the change in land use;
- The potential for the clearing or change in land use to cause land or water degradation;
- The methods used to survey flora, fauna, and identify likely impacts;
- Likely impacts of clearing or change in land use on scenic landscape values;
- Likely impacts of clearing or change in land use on aboriginal cultural values;
- Any measures proposed to ameliorate adverse impacts arising from clearing or subsequent change in land use;
- Consistency with any Plan of Management or policy adopted by Council, DIPNR, DEC or NSW Fisheries (e.g. Rehabilitation and Management Framework in this Strategy, Coastal Protection Plans, Estuary Management Plans, Catchment Management Plans, Species Recovery Plans, Threat Abatement Plans etc.);
- The necessity for, and design of, an environmental buffer to safeguard values in adjacent areas; and
- Any implications for bushfire management and planning.

Specific guidelines on addressing these matters should be provided in the Habitat Management DCP (see below).

### **5.2.2.3 DCP 40 (Exempt and Complying Development)**

Development Control Plans (DCPs) are land use planning documents produced by Council’s to fine tune and compliment their local environmental plans. DCPs are often used to provide guidelines on building design, subdivisions and master planning for urban release areas. Development Control Plan 40 (Exempt and Complying Development) identifies of development that do not need council consent

Unlike other DCPs, Development Control Plan 40 is legally binding and can only be changed after formal consultation and approval of the Minister for the DIPNR. One of its primary functions is to specify types of development that may be exempt from the need for development approval (e.g. letter boxes, garden sheds etc). This mechanism can also be used to define specific types of “clearing” that would not require consent.

It is suggested that an additional schedule be added to DCP 40 to facilitate this. In general terms such exemptions should allow clearing that is unlikely to cause significant environmental impact and appropriate consideration should be given to maintaining consistency with current exemptions that apply under the Native Vegetation Act 2003.

It is also important to note that an exemption under DCP 40 is an exemption under the Environmental Planning and Assessment Act 1979 and does not imply exemption under any other legislation such as the Native Vegetation Act

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2003 or Threatened Species Conservation Act 1995. In relation to the latter this means that a DCP 40 clearing exemption cannot be used to avoid any obligations under the TSC Act 1995 (see Vol. 2 Section 5.1.1.2).

The amendments to the Tweed LEP 2000 accepts the clearing exemptions under the Native Vegetation Act 2003 for rural zones to enable landowners to undertake 'permitted activities' and 'permitted clearing' in the majority of Tweed's rural areas without the need for approval. This includes clearing as part of routine agricultural management activities, clearing of regrowth, other minor clearing activities and clearing for emergencies. Council will direct landowners to DIPNR for information on clearing consents and exemptions in rural areas.

#### ***Routine Agricultural Management Activities***

Routine agricultural management activities that do not require consent under the Native Vegetation Act 2003 include the clearing of native vegetation for the following purposes:

- Construction and operation of rural infrastructure including dams, permanent fences, buildings, windmills, bores, stock yards and farm dams.
- Removal of noxious weeds.
- Control of noxious animals.
- Collection of firewood (non-commercial).
- Harvesting/clearing of commercially planted native vegetation.
- Loping of native vegetation for stock fodder.
- Traditional non-commercial Aboriginal cultural activities.
- Maintenance of public utilities.
- An activity reasonably considered necessary to remove or reduce and imminent risk of serious personal injury or damage to property.
- Other activities in the regulations of the Act.

#### **5.2.2.4 Habitat Management DCP**

A Development Control Plan is suggested to provide guidance to proponents, Council and State agencies on issues associated with habitat management in the Shire. In particular the DCP should provide:

1. ***Background and resource information/mapping*** (e.g. vegetation mapping, ecological values mapping and criteria, steep land mapping, scenic bushland mapping, potential koala habitat, DEC Atlas data, additional sources of data, web sites etc.). Although the accuracy of this information at individual sites could not always be guaranteed it could be used by proponents to enable an initial scoping of the issues that may relate to their proposal. For example, an area denoted as highly significant on the basis of the ecological status modelling may suggest that the proposal be reconsidered without the need for further assessment. On the other hand, the proponent's knowledge of the site may suggest that the mapping was incorrect and thus provide a legitimate avenue for pursuing the proposal.
2. ***Simple guidelines on how the planning process addresses issues habitat management on the Tweed.*** This should include simple diagrams and flow charts and addresses 'frequently asked questions' preferably by providing realistic examples.
3. ***Guidelines to assist in assessments made by TSC on applications for clearing vegetation.*** It is anticipated that these guidelines would be based on further development of the ecological status criteria (see Vol. 2 Section 3.2) to the site level (ecological status determined by both landscape and site-specific attributes). The guidelines would also address individual matters of consideration specified in the LEP and Threatened species considerations (e.g. using the Threatened Species Habitat Database (Appendix 10) to identify target fauna and

other '8 part test' requirements). The assessment procedures should be transparent, as simple as possible and be generally consistent with the assessment procedures used by State agencies (e.g. Northern Rivers CMA).

4. **Guidelines on vegetation/fauna surveys.** These will specify the survey effort and techniques appropriate for certain species and circumstances. Such requirements will need to be proportional to the nature of the proposal – larger proposals should be accompanied by more detailed surveys than small proposals.

In order to make this information accessible and to facilitate its updating, it would be desirable that the DCP be available in an interactive digital format both on the Internet and on Compact Disc.

#### **5.2.2.5 Tree Preservation Order 1990**

The TPO 1990 will need to be reviewed to ensure it does not duplicate other LEP regulations. It should also be extended in the lead up to changes in the LEP to prevent pre-emptive clearing.

#### **5.2.2.6 Aboriginal Heritage Schedule**

Important known sites of Aboriginal significance should be identified and protected by zoning or schedule in the Local Environmental Plan (LEP). The Aboriginal community should be consulted on the inclusion and extent of individual sites.

#### **5.2.2.7 Section 94 Developer Contribution Planning**

At present there is no consistent policy to guide Section 94 Developer Contribution Plans. It is desirable that these plans be consistent with the objects of this Strategy both in relation to the protection of valuable natural assets, and for the facilitation of priority rehabilitation and management actions.

Thus it is suggested that Council consider the development of such a policy.

#### **5.2.2.8 Bonus Development Rights**

As noted previously (Section 4.3), negotiated outcomes associated with rezonings are currently undertaken in Tweed Shire on an *ad hoc* basis. This approach is most applicable to partially cleared sites with minimal planning protection but especially those with high value vegetation.

It is recommended that a policy be determined to guide these sorts of negotiations. Careful consideration should be given to complexities arising from offset mitigation arrangements that may be included here.

#### **5.2.2.9 Conservation Covenants on New Development**

Consideration should be given to the use of conservation covenants for new development especially in the vicinity of significant bushland or in known proximity to threatened species habitats. This is particularly important to limit potential impacts from domestic pets.

#### **5.2.2.10 Protection of Koala Habitat**

As noted in Volume 1 Section 5.3.3 a substantial body of information has now been collected which could be used for the production of a Comprehensive Koala Plan of Management for the Shire. Such a Plan would eliminate the need to carry out individual assessments (under SEPP 44 – Koala Habitat Protection) but more importantly would help address the cumulative impacts that continue to threaten the viability of this species on the Tweed.

It should also be noted that the bushland protection measures recommended in this Strategy would not, on their own, prevent the local extinction of this icon species. This is because their most suitable habitat in the Tweed is already

highly fragmented, they often utilise isolated and scattered trees which fall below the tree densities used to define bushland, and are susceptible to numerous threatening processes (e.g. disease, road mortality, predation by dogs).

It is therefore recommended that a Comprehensive Koala Plan of Management be prepared in accordance with SEPP 44 – Koala Habitat and similar Plans prepared in other local government jurisdictions (e.g. Port Stevens, Coffs Harbour).

## 5.3 Non-regulatory Strategies for Protection

Suggested **non-regulatory** actions aimed (at least in part) at increased habitat protection include:

1. *Voluntary Acquisition*
2. *Rate relief for increased security and management*
3. *Liaison with the Aboriginal Community*
4. *Council Works and Activities*
5. *Development of an incentive scheme*
6. *Extension, Education services.*

Since items 5 and 6 above relate more substantially to issues of rehabilitation and protection they are addressed under Section 6.0 below.

### 5.3.1 Voluntary Acquisition

Although voluntary acquisition is potentially expensive compared to restricting landuse through planning mechanisms or management incentives (see Section 4.5), its use may be justified in certain circumstances. Examples include:

- Strategic acquisition of lands to increase or improve Council's bushland estate (e.g. blocks adjacent to current estate, linking corridors etc);
- Acquisition in circumstances where all non-nature conservation land uses would result in unacceptable impacts (e.g. critical habitat for a highly endangered species or population) and;
- Acquisition where costs are extremely low and environmental values potentially high (e.g. land-locked blocks, escarpments etc).

As noted previously, acquisition is widely practiced in Queensland (e.g. Gold Coast City, Brisbane City), often as the major protection mechanism. Due to differences in the planning systems, this emphasis is not necessary in NSW. It is therefore recommended that it be used only after consideration of alternative options.

Of course incidental contributions to Council's bushland estate may arise from acquisitions for other purposes (e.g. infrastructure).

### 5.3.2 Rate Relief

Rate relief through a differential rating system is a potentially viable mechanism to help protect natural areas. As noted (Section 4.4) Tweed Shire already has a 40% differential rate for "farmland". It is recommended that this

scheme be extended to “lands set aside or managed primarily for nature conservation purposes”. To be eligible, it is suggested that applicants agree to an Environmental Zoning, Voluntary Conservation Agreement (VCA under DEC) or other suitable management agreement to cover the specified area. Rate relief should only cover that proportion of the property covered by the Environmental Zoning, VCA or other management agreement. Detailed eligibility guidelines would need to be formulated.

### **5.3.3 Aboriginal Liaison**

It is recommended that Council employ an Aboriginal Liaison Officer to help coordinate Aboriginal input into the full range of its activities, (e.g. community health, land use planning, natural resource management, education, arts and cultural exchange etc.). Such an appointment would be responsible for seeking input from all sectors of the Aboriginal community.

In the event that such an appointment is not feasible Council should approach the Tweed Byron Local Aboriginal Land Council with a view to establishing a protocol for Aboriginal input into Development Applications involving clearing of bushland

### **5.3.4 Council Works and Activities**

On the basis some of the issues identified in Volume 2 Chapter 5 a number of recommendations are made in relation to Councils own activities.

#### **5.3.4.1 Adoption of the Tweed Vegetation Management Strategy 2004**

It is recommended that Council adopt this Strategy as a guide to the execution of Council functions across all areas (e.g. strategic planning, development control, asset and facility maintenance etc.).

#### **5.3.4.2 Preparation and Implementation of a Roadside Vegetation Management Plan**

The need for such a Plan was identified in the TVMP99 and is also advocated by the NSW Roadside Environment Committee. Some progress has been made toward this with the development of a database of significant roadside trees (administered by TSC Recreation Services) however; more specific guidance is needed for Council’s outdoor staff. In addition to the direct protection of significant roadside vegetation, there are also issues with the spread of weeds by roadside slashing, and the planting of inappropriate species.

#### **5.3.4.3 Preparation and Implementation of Plans of Management for Significant Bushland Owned or Managed by Council**

As Council’s bushland estate grows there is an increasing need for specific management actions to rehabilitate, manage and enhance these areas. This is particularly so in areas of increasing recreational demand and at urban - bushland interfaces where there are numerous management needs (e.g. bushfire management, dumping, weed invasion, vandalism etc). Such Plans of Management should be consistent with the principles of the rehabilitation and management framework outlined in this Strategy.

#### **5.3.4.4 Continued Liaison with DEC on Threatened Species Issues**

Due to the large number of threatened species on roadsides and on Council land, officers from the TSC Recreational Services department should continue to liaise closely with DEC to assist in species recovery.

## 6.0 Strategies for Rehabilitation and Management

While the issue of clearing consent (see above) needs to be explicitly detailed in one form or another it is important to recognise that this is only one component of an overall vegetation management strategy. The ultimate success of such a strategy, and its main focus, is likely to be in the area of promoting ongoing habitat management and rehabilitation. This role will become increasingly important once the regulatory framework has been established.

The goal of this section is to suggest viable pathways for the further development and implementation of the priorities identified in Volume 2 Chapter 8. Major components include:

1. *Project funding and coordination*
2. *Rate relief for increased security and management*
3. *Section 94 Contribution Plan Policy*
4. *Conservation Covenants on New Development*
5. *Management of Koala Habitat*
6. *Council Works and Activities*
7. *Extension advice and advocacy.*

Adequate funding for these activities is essential to the success of any management strategy. Without adequate funding and institutional support for management and rehabilitation activities, there are real dangers that the approach to vegetation management will be perceived simply as further regulatory control.

The major beneficial outcomes of providing finance for management and rehabilitation have been outlined by DLWC (1996):

- *Vegetation maintenance and improvement - helping reduce economic barriers in securing the existence of remnant vegetation and the condition and quality of existing native vegetation.*
- *Cost sharing - ensuring equity by applying the "beneficiary pays" principle by sharing the cost of vegetation management and rehabilitation between individual landholders and the broader community. The benefits of native vegetation conservation accrue in part to public interest, as well as benefiting landholders; therefore the public should somehow contribute.*
- *Appropriate level of conservation - helping to ensure that vegetation is conserved at a level beyond the direct needs of landholders, to a level corresponding more closely to optimal public good.*
- *Hardship relief - providing direct relief to landholders whom sustain a disproportionate burden of the market failure resulting from regulatory approaches. Maintains equity.*

### 6.1.1 Project Funding and Coordination

Funding assistance for projects is likely to be the most effective and accessible strategy to assist the implementation of the rehabilitation and management priorities identified in Volume 2 Chapter 8. Apart from the resource implications (e.g. Environmental levy, see Section 8.0 below) it is crucial that such a program be effectively coordinated.

It is suggested that a single community-based organisation be responsible for the further development and implementation of a rehabilitation and management framework in the Tweed. Ideally, such a group should be empowered to administer and coordinate all potential sources of project funding (e.g. Council and State-based). This is especially important given the expectation that National Heritage Trust and other some funding will be directed according to priorities determined by the Northern Rivers CMA, which may be limited in scope. Being independent

of specific sources of funding (which come and go), such a structure would allow funding allocations to be made across the full range of priority areas in the context of a comprehensive and locally relevant strategy. It is highly likely that such an organisation would require the assistance of a paid coordinator. A Council-funded environmental officer and/or support from the CMA could achieve this.

Further investigation is needed to determine the most effective administrative structure and committee representation. At a minimum representation should consist of Council, DIPNR, DEC, Northern Rivers CMA and Landcare. Due to the technical nature associated with allocating and monitoring funds from numerous sources representatives should be selected on the basis of their experience and knowledge in this area. Such an organisation could be derived from the existing Vegetation Management Plan Steering Committee, Tweed Landcare Inc. or a completely new organisation could be established.

Whatever the administrative structure, it is suggested that proposals for planning or on-ground works consistent with defined rehabilitation and management priorities (based at least initially on the principles and framework set out in Volume 2 Chapter 8) be received from individuals, community groups, and Council itself, with funds allocated on a competitive basis. Specific guidelines would need to be established to ensure accountability and transparency.

### 6.1.1.1 Fund Allocation

In deciding which projects to fund and how, the following guidelines may be useful.

The approach suggested in the rehabilitation and management framework (Vol. 2 Chapter 8) involves striking a balance between ecological priorities and strategic opportunities. Thus funding should be directed towards programs that address one or more priority areas identified in the rehabilitation strategy and promise to deliver most benefit for least cost. Application forms should provide proponents with the opportunity to identify both ecological priorities and other opportunities that favour their proposal (e.g. in kind contributions, site security such as VCA status, experience and track record). At least initially, fund allocation could be achieved by a simple scoring scheme to rank projects on the basis of merit.

It is suggested that within the committee, attempts should be made to allocate funding to the full range of ecological priority areas. However, since individual funding bodies will specify their own priorities, this will mean that strategic decisions will need to be made where flexibility is available. Other complications may arise from the need to provide recurrent funding for specific projects. Where possible these sorts of issues should be identified up-front.

There will also need to be a monitoring and evaluation protocol. Care should be taken to ensure that this is not overly onerous on applicants especially for minor projects. In general the higher the level of funding, the greater the level of accountability.

### 6.1.1.2 Maintaining Enthusiasm and Momentum

The preceding discussion has highlighted the importance of gaining community and landholder acceptance in order to effectively implement successful programs for habitat management and rehabilitation. Once this acceptance is gained and conservation programs are in place, however, the energy and enthusiasm of those involved must be maintained in the long term to ensure the programs' success.

Maintaining enthusiasm and momentum will rely heavily on:

- **Education and motivation** - a good understanding of the reasons for the project and its aims and objectives is critical for maintaining momentum. Furthermore, people in charge of directing and/or implementing the programs must be able to foster the enthusiasm of everyone involved.
- **A strong vision of the anticipated / desired outcomes** – so that the direction of the project is clear; even if setbacks occur, a realisation of the benefits that will be achieved in the medium to longer term is essential.
- **A set of goals that enables some short-term, easily-measurable successes** - to demonstrate that the longer-term desired outcomes are achievable.

- **Adequate support** - from all institutions directly or indirectly involved by way of funding; provision of expertise for appropriate information and guidance; and project management, including the running of meetings and conflict resolution.
- **A cooperative atmosphere** – with good levels of communication between those participating in administering, directing and carrying out the on-ground work of the projects.

### **6.1.2 Rate Relief**

A program of rate relief for “lands set aside or managed primarily for nature conservation purposes” was recommended as a measure for securing greater protection of natural areas (Section 5.3.2). This mechanism can also be used as a rehabilitation and management incentive. In this case rate relief should be linked to some form of management agreement. In cases where the management agreement has a specified life, rate relief should apply only to that period. As noted, detailed eligibility guidelines would need to be formulated.

### **6.1.3 Section 94 Contribution Planning**

As suggested previously (Section 5.2.2), Council should consider the development a policy to ensure that Section 94 developer contribution plans are consistent with the objects of this Strategy both in relation to the protection of valuable natural assets, and for the facilitation of priority rehabilitation and management actions.

### **6.1.4 Conservation Covenants on New Development**

The use of conservation covenants on new development is consistent with the objects of this Strategy both in relation to the protection of valuable natural assets, and for the facilitation of priority rehabilitation and management actions.

### **6.1.5 Management of Koala Habitat**

Development and implementation of a Comprehensive Koala Plan of Management as suggested in Section 5.2.2 will have implications not only for the protection of Koala habitat but also in the area of rehabilitation and management. The Plan will need to address issues related to koala population dynamics (e.g. recruitment, disease, mortality etc) and the management of threatening processes. The Plan of Management will therefore aid the implementation of the rehabilitation of management priorities outlined in Volume 2 Chapter 8.

### **6.1.6 Council Works and Activities**

Council works affect both the protection and management of natural assets. Suggested Strategies in this area are addressed above under Section 5.3.4.

### **6.1.7 Extension Advice and Advocacy.**

Education, extension advice and promotion are essential components in both efforts to protect natural areas and for the success of any rehabilitation and management actions. Examples of Council actions to educate landholders include:

- providing free advice to landholders and catchment committees and giving access to Council information on vegetation management topics;
- providing information on 149(S) Certificates on Council policy and statutory provisions relating to fauna and flora issues;

- undertaking demonstration projects, in partnership with other community groups, on land rehabilitation (perhaps in partnership with catchment committees and other community groups);
- sharing information with other Government agencies and community groups on vegetation management issues;
- employing environmental specialists to assist landowners, development proponents and Council staff in resolving nature conservation issues, and providing an educational role; and
- preparing educational and promotional information for schools, other educational establishments and the general public on vegetation management and incentives in Tweed Shire.

## **7.0 Continuing Strategy Development and Review**

Once this Strategy has been adopted issues of implementation will need to be monitored and reviewed as necessary. New data will need to be incorporated into the existing GIS and other databases and changes to State and Federal legislation and policy will also need to be incorporated. Suggested approaches to dealing with these issues follow.

### **7.1.1 Vegetation Management Plan Steering Committee**

It is recommended that the Vegetation Management Plan Steering Committee continue to operate as a focus for monitoring and review of the Strategy. This will help ensure that adopted Strategy actions are followed through and their effectiveness monitored as well as keeping open lines of communication between stakeholders and agencies.

To facilitate these roles, there may need to be changes to the Committee's Terms of Reference. In this new role it is anticipated that the Committee may not need to meet as frequently as present (monthly).

The Vegetation Management Steering Committee (or its successor) should continue to seek participation from the Aboriginal community on matters of vegetation management. Such participation need not involve regular attendance at committee meetings but an open invitation should remain.

### **7.1.2 Education and Promotion**

Given the complexity of the issues involved it is recommended that promotional material be prepared to educate and inform residents of this Strategy and its approach to vegetation management in the Shire.

It is also desirable to make this Strategy and its associated documents (LEP, DCPs, mapping etc.) available in a wide range of formats (e.g. CD, hard copy, Internet etc.).

### **7.1.3 Database Maintenance and Monitoring of Landscape Change**

The information and mapping on which this Strategy is based is dynamic and will need to be updated from time to time. It is suggested that the bushland boundaries be reviewed at interval of not less than five years. Revisions in vegetation typing will inevitably occur more frequently as particular sites are assessed in relation to the development control process. Such mapping needs to be checked for reliability and compatibility (e.g. coding, scale, date etc.) before being incorporated.

Changes in criteria for assessing ecological significance will also need to be made from time to time as new information becomes available (e.g. new Threatened Community listings). This sort of information will have implications for the Habitat Management DCP and identified rehabilitation and management priorities.

Failure to adequately address these ongoing issues will eventually erode the relevance of the overall Strategy.

## 8.0 Resource and Policy Change Implications

### 8.1 Resource Implications

For the suggested strategies (see above) to be successful, they need to be adequately resourced.

As mentioned previously, adequate resourcing and institutional support is particularly important for management and rehabilitation activities. Without a substantial commitment in this area, there are real dangers that the approach to vegetation management will be perceived as biased in terms of the balance between regulatory measures for protection and incentives for rehabilitation and management. Moreover, there can be little doubt that effective implementation of management and rehabilitation programs will dominate nature conservation concern over the next few decades in the Shire.

Resourcing implications in relation to specific implementation components for Tweed Shire are outlined in Table 8.1 below.

**Table 8.1 Resource Implications for Recommended Implementation Components**

Implementation Component	Strategy Area			Resource Implications
	Prot- ection	Rehab . & Manag	Ongoing Devop. & Review	
Changes to Planning Framework	✓		✓	<p>Adequate funding will need to be allocated to the Tweed Shire Council Strategic Planning Unit to enable the necessary changes to the planning framework. This will involve substantial amendment to the written provisions of the LEP and its zone maps.</p> <p>Development of the Habitat Management DCP will involve specialist (consultant) input and will need to be adequately resourced.</p> <p>Resources required to streamline the process of developing Section 94 Developer Contribution plans and the development of policy in relation to negotiated rezonings should be included in the overall budget for strategic planning.</p> <p>The changes will also involve ongoing costs in terms of the assessment of clearing applications, extension services to the public, monitoring and refinement of the planning framework, and updating of the relevant information databases. An experienced specialist Environmental Officer based in the Strategic Planning Unit could best perform these tasks. Since these tasks are essentially within Council's core business function, funding should be provided from within the Strategic Planning Unit budget. However, the position could also include involvement in the implementation of the rehabilitation and management framework and as such it may be appropriate to seek other sources of funding for this component of the work (see below).</p>
Voluntary Acquisition Program	✓	✓	✓	<p>Resources for voluntary acquisition could be derived from part of an Environmental Levy although this would need to be balanced against other potential uses of these funds (e.g. rehabilitation and management projects; see below). It is anticipated that this program would be opportunistic (see previous discussion; Section 5.3.1) and should therefore not be considered a major initiative.</p>
Rate Relief				<p>Any loss of revenue through the implementation of a rate relief program would need to be borne by Council, and an evaluation of the potential</p>

Implementation Component	Strategy Area			Resource Implications
	Prot- ection	Rehab & Manag	Ongoing Devop. & Review	
Program	✓	✓	✓	impact would need to be investigated. It should be noted however, that under a DEC Voluntary Conservation Agreement a 100% rate rebate is already possible under State legislation.
Koala Habitat Protection and Management	✓	✓	✓	Preparation of a Comprehensive Koala Plan of Management will require specialist input although much of the necessary background investigations have already been completed.
Aboriginal Liaison	✓	✓	✓	<p>The appointment of an Aboriginal Liaison Officer should be funded from general revenue. Note that such an appointment would cover many areas of council's interest (community health, education, arts and cultural exchange etc) not only land use planning and natural resource management issues. The potential workload would need to be investigated to establish whether or not the appointment should be full-time or part-time.</p> <p>The alternative establishment of a protocol with representatives of the Aboriginal community to seek input into development applications involving clearing will also incur some ongoing administrative cost.</p>
Council Works and Activities	✓	✓	✓	<p>Council-wide adoption of this Strategy implies that sufficient resources are allocated to ensure its implementation (see individual components).</p> <p>Resources for the preparation of specific Plans of Management for Council's bushland estate are a core responsibility under the LG Act and should be sourced from general revenues.</p> <p>The preparation of a Roadside Vegetation Management Plan could be funded using proposed Environmental Levy funds in accordance with the rehabilitation and management framework.</p> <p>Continuing liaison with DEC in relation to Threatened species recovery should not incur significant resourcing implications. Much of this work could also be handled by an experienced Environmental Officer.</p>
Project Funding and Coordination		✓	✓	<p>It is recommended that an Environmental Levy be established to provide funding support for rehabilitation and management projects. As noted previously (Section 4.4) Coffs Harbour City Council, a City with a similar rate base and management issues to Tweed, raises nearly \$800 000 per year from its Environmental Levy (app. \$14 pa per lot).</p> <p>Apart from project funding the levy could also be used to partially support an Environmental Officer to assist with its administration and promotion, and in certain circumstances to purchase land for nature conservation. Care should be taken to make sure such funds are not used to support Council's core functions, although as noted Council (along with community groups and individuals) should be eligible to tender for funds that fall within the scope of the rehabilitation and management priorities.</p>
Education, Extension and Advocacy	✓	✓	✓	<p>Resources for the funding of extension services and education should be derived primarily from departmental budgets, although discrete educational projects could be considered under the Environmental Levy.</p> <p>It is anticipated that a specialist Environmental Officer could handle much of this work although funds would need to be available for printing and associated costs. In some circumstances it may also be necessary to contract media specialists to aid in the composure of brochures and other</p>

Implementation Component	Strategy Area			Resource Implications
	Prot- ection	Rehab & Manag	Ongoing Devop. & Review	
				media (e.g. Internet).
Vegetation Management Plan Steering Committee	✓	✓	✓	Minor expenditure will be required to maintain the Vegetation Management Plan Steering Committee. This role should be considered an on-going strategic planning function.
Database Maintenance and Monitoring of Landscape Change			✓	It is anticipated that work in this area could be coordinated by an Environmental Officer although specialist skills (consultant) may be required for some aspects. Resourcing for this component should be considered as an on-going strategic planning function.

## 8.2 Effects of Policy Change

This section provides a qualitative overview of some of the potential stakeholder impacts that may arise from the suggested vegetation management reforms. It is not intended to be a comprehensive socio-economic impact assessment and thus does not attempt to quantify financial impacts (or benefits) to individuals or flow-on effects throughout the community. It is suggested that such an analysis should only be attempted once a preferred set of provisions are agreed through the Vegetation Management Plan Steering Committee and if there remain serious concerns among stakeholder groups. Accordingly this section provides a starting point for discussion on these issues.

To minimise the social and economic impacts of vegetation management reforms the planning response needs to recognise and anticipate:

- Social and economic trends;
- Sources of conflict and the extent to which planning controls can address these;
- Property rights and cost burdens;
- The extent of the positive and negative impacts;
- The environmental risks associated with inaction or the maintenance of the *status quo*;
- Legislative requirements;
- Current planning and management framework.

Of course the last of these points is the benchmark against which any impacts on the community need to be assessed. To be comprehensive such an analysis needs to evaluate the entire suite of regulatory controls and incentives that arise from the vegetation management plan in relation to the current provisions.

Unfortunately at this stage the entire set of provisions have not been finalised, however the experiences of other regions (e.g. Richmond and Clarence RVMPs) provide some insights into the potential sources of conflict. Among the commonly expressed concerns listed in the previous section the most vociferous and persuasive relate to increased costs associated with minor clearing on private property.

Not surprisingly, management incentives are rarely considered unreasonable, however the common expectation among some vegetation planners and administrators that such incentives should compensate (at least in part) for increased regulation is rarely realised. This is simply because those who are affected by increased regulation are not necessarily the same individuals that make use of incentive programs. This means that unless a very strong nexus can be established between any increased regulation and available incentives, it is unlikely that an incentive package will avert real or perceived grievances. Under these circumstances (and at this stage) it is prudent to review the current regulatory controls on clearing (see also Vol. 2 Chapter 5) and compare these to those currently under consideration. Notwithstanding this it also needs to be acknowledged that individuals within some sections of the community may object to contributing financially (e.g. via an environmental levy) to programs that they perceive as having little direct benefit to them. A summary of the main differences in regulatory controls is presented in Appendix 17.

Some potential impacts among some stakeholder groups are listed below.

## 8.2.1 Rural Landholders

As implied from Appendix 17 the main changes to the current provisions for rural landholders include:

1. The removal of restrictive environmental zones in rural areas in favour of a merit based assessment focussed on areas of mapped bushland; and
2. A system of exemptions will continue to operate so that routine property management can be undertaken without the need for consent.

There are likely to be three areas of potential conflict associated with these changes:

1. Issues associated with the procedures required for consent;
2. Changes to the scope of the exemptions; and
3. Confusion regarding the appropriate consent authority.

These issues are addressed briefly below.

### 8.2.1.1 Consent Procedures

Under NV Act and Tweed LEP 2000 clearing controls (including consent) apply to all rural land although there are differences in application between protected lands, environmental zones and non-protected lands. It is not anticipated that there will be major changes to assessment requirements (i.e. Heads of Consideration) that currently apply to clearing consents. However, it is intended that clearer guidelines on addressing issues associated with clearing will be provided.

### 8.2.1.2 Clearing Exemptions

As noted in Volume 2 Section 5.1.1.3 a number of exemptions currently apply to allow certain minor clearing activities to occur without the need for consent. It is expected that the exemptions will be mostly mirrored in Council's LEP. In some cases it will be possible for an exemption to apply under the NV Act but not under Council's LEP.

Under the current proposals the main effect of this will be the effective abolition of the 2 ha so-called "minimal clearing" exemption on non- State Protected Land. This exemption was carried over from the NVC Act (1997) as a transitional provision and is to be reviewed in the form of a SEPP under the EPA Act. Since the minimal clearing exemption will not exist under the NV Act on non-State Protected Land, it is difficult to envisage that it will be able to persist on State Protected Land, which should have greater protection.

It should also be noted that obligations to protect threatened species under the TSC Act would continue to exist under both NV Act and the LEP exemptions.

### 8.2.1.3 Consent Authority Issues

Confusion regarding the appropriate consent authority for clearing is an obvious problem for landholders. Landholders on LEP zones 1 (rural zones including rural residential zones) and 7 (environmental protection zones) are subject to the NV Act. This means the clearing consent (or an approved PVP by Northern Rivers CMA) will be required from DIPNR if the clearing is not excluded (e.g. other legislation) or exempt (e.g. routine agricultural management activities). If consent is required under the NV Act, consent from Council will not be required for clearing (but may be required for ancillary development). However, if consent is not required under the NV Act, Council may require it where the clearing is not also exempt or excluded under the LEP. Examples include clearing in Environmental Protection zones or on State Protected Land. In the longer term it is expected that all clearing in

rural zones will be addressed under the NV Act. Additional approvals may also be required if Threatened species or fish habitat is likely to be affected.

Although the proposed situation remains relatively complex it is no more so than the existing procedures. Proposed changes to Tweed LEP 2000 and it should avoid the need for dual consents for clearing vegetation from a variety of government agencies, which can potentially apply at present.

It is suggested that suitable extension material be produced to help landholders navigate the clearing provisions.

## **8.2.2 Development Interests**

A wide range of planning controls (e.g. Development Consents and Environmental Studies) are already in place to address clearing (and other environmental impacts) associated with major changes in land use. It is not anticipated that there will be changes to assessment requirements (i.e. Heads of Consideration) for Development Applications and Environmental Studies. One of the outcomes of the vegetation management planning process is expected to be clearer guidelines on addressing environmental issues (e.g. Habitat Management DCP). This should provide greater certainty for those wishing to initiate major changes in land use.

Further certainty should also arise from strategic planning initiatives such as rezoning of ecologically important habitats along the coast. Although such measures may be perceived as adverse impacts by some landholders involved in speculative ventures, it must be emphasised that such speculation always involves risks, especially where potentially important environmental impacts are involved. It is a simple economic reality that those involved in such activities need to be aware of the risks and make calculated decisions based on their assessment of costs and benefits. In any case, important ecological assets would need to be identified and addressed (at the landholders expense) at the time of a required Development Consent or in the case of a rezoning, a Local Environmental Study.

Changes to clearing exemptions however, may help prevent “pre-emptive clearing” by requiring consent for major clearing in rural zones. In the past some landholders have cleared important areas, ostensibly for agriculture, but with the real intention of minimising constraints for much more profitable enterprises involving major changes in land use. Thus the removal of potentially important areas prior to the need for a Development Application or Local Environmental Study effectively circumvents intended application of these measures.

## **8.2.3 Urban Residents**

There are unlikely to be any major adverse implications for urban residents as the Tree Preservation Order 1990 currently covers most of these areas. Some amenity benefits however, are likely to be apparent from increases in environmental protection zones adjacent to built-up areas. Nonetheless, some residents may object to proposals that they contribute financially (e.g. via the suggested environmental levy) to environmental enhancement works in rural areas.

## **8.2.4 Aboriginal Community**

Proposed improvements to clearing exemptions are intended to avert potential problems with minor clearing for ceremonial or cultural purposes. Proposed protocols for consultation should ensure the aboriginal community are explicitly invited to raise any concerns they may have about land use planning issues without having to reveal culturally sensitive information (see Vol. 2 Chapter 7). Providing the Aboriginal community (consultation in progress) considers these measures sufficient the changes to vegetation management provisions should result in net benefit to this section of the community.

## **9.0 Priority Actions**

All of the following actions are considered essential for the successful implementation of this Strategy:

1. Adoption of the Tweed Vegetation Management Strategy 2004 as a to guide the execution of Council functions (e.g. strategic planning, development control, asset and facility maintenance etc.) relating to vegetation and habitat management.
2. Regulatory changes to the planning framework as set out in Section 5.2.
3. Appointment of an Environmental Officer to administer the Strategy.
4. Establishment of an Environmental Levy to fund management and rehabilitation priorities throughout the Shire.
5. The establishment of an organisational structure to coordinate financial and other assistance for rehabilitation and management projects, preferably in conjunction with the Northern Rivers CMA