

**THE MANAGEMENT OF
URBAN VEGETATION IN
NORTH SHORE CITY**

Office of the
PARLIAMENTARY COMMISSIONER FOR THE ENVIRONMENT
Te Kaitiaki Taiao a Te Whare Pāremata

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URBAN VEGETATION IN
NORTH SHORE CITY**

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PARLIAMENTARY COMMISSIONER FOR THE ENVIRONMENT
Te Kaitiaki Taiao a Te Whare Paremata

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Investigation Team

Phil Hughes (Team Leader)

BSc (Geog), BA (Econ), MRRP

Jenny Boshier

BE (Chem)

Reviewers

Dr John Craig

University of Auckland

Graham Spargo

Senior Consultant, Hill Young Cooper Ltd,

Auckland

Editor

Jeanne Boland BA (Hons), MA

Capstone Consultants

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A list of organisations and individuals consulted as part of this investigation appears as appendix 1 of this report.

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PREFACE

North Shore City occupies one of New Zealand's most beautiful landscapes. Within its 12,500 ha, it has striking coastal cliffs, sweeping beaches, bush-clad inlets, escarpments, and volcanic cones. Predominantly suburban in form, it is home to 170,000 people. City growth rates are high, with resultant pressure to subdivide within the city and expand at the boundaries. These are all ingredients which are likely to generate conflict if the assets which make the city an attractive place to live are threatened.

This investigation was born out of specific concerns about the management of vegetation (including mature pohutukawa) on the North Shore, concerns that are symptomatic of much wider challenges facing local government - the challenges to safeguard the life-supporting capacity of urban ecosystems and to deliver on maintaining and enhancing amenity values as defined in the Resource Management Act. North Shore City, the institution and its ecological assets, offers great potential to meet community needs.

My investigation aimed to identify the issues underlying the complaints, the strengths and weaknesses of the Council's processes to manage vegetation and provide some direct assistance (via a workshop) in addressing needs.

Deficiencies were identified in:

- knowledge of the vegetation assets of the City;
- processes used to assess resource consents;
- policy frameworks; and
- understanding of what constitutes good vegetation management and why it is important.

Deficiencies in such areas are not unique to North Shore City. They appear to be the product of intense pressures to operate a least cost (in fiscal terms) resource consenting process, compounded by a general lack of appreciation of the great value, and values, of urban vegetation. People can be passionate about trees, and greenery in general - for good reasons. Vegetation has great value in amenity terms for the provision of what is called ecosystem services: the releasing of oxygen; absorbing carbon dioxide and water; moderating micro-climates, giving shade and shelter from winds; providing habitat for wildlife - birds and insects, both native and exotic species. These contributions to environmental quality are poorly understood and hence have not been adequately valued by some city politicians and administrators.

One of the keys to managing assets (vegetation or buildings) is knowing the state of those assets (the quantity and condition) and their trends (are they growing or declining). North Shore's greatest weakness is the lack of a good understanding of its vegetation assets and adequate systems to monitor them. The vegetation component of a city is a dynamic entity.

It is not the fate of an individual tree that is important ultimately, but the overall state of vegetation in the whole city. There must be mechanisms to establish whether the vegetation "balance sheet" is growing or shrinking. Without them there is simply no context within which to assess resource consents.

I am confident that the North Shore City team, with help from their wider community (Maori, pakeha, business, NGO etc), science organisations and other territorial authorities, will address the lack of knowledge, the systems and the policy failures that led to the need for this investigation. A start was made during the investigation. Over the next two years I will monitor the progress of their efforts.

Dr J. Morgan Williams
Parliamentary Commissioner for the Environment

EXECUTIVE SUMMARY

The management of vegetation is a considerable challenge in the urban environment. Residential and business development can have significant adverse effects on the extent and condition of urban vegetation.

Urban vegetation includes individual trees and groves of trees, areas of bush, “green belts”, parks, and reserves. It includes vegetation in either public or private space and, in some instances, the combination of these areas (ie the streetscape). Urban vegetation is essential for visual amenity and landscape enhancement and for ecosystem services - the functions performed by ecosystems that ensure natural cycles (of water, oxygen, carbon, soil etc) continue to provide an environment conducive with quality of life, including human life.

In early 1997 the Parliamentary Commissioner for the Environment received thirteen expressions of concern about the management of urban vegetation in the North Shore area. These concerns related to both the management of urban vegetation and the protection of significant urban vegetation (eg notable trees and areas of regenerating bush) by the North Shore City Council. After conducting initial inquiries, the Commissioner decided to investigate the wider issue of the management of urban vegetation in North Shore City, particularly from the long-term perspective.

(Recommendations to the North Shore City Council have been italicised)

North Shore City contains striking coastal landforms such as cliffs, sweeping sandy beaches with coastal pohutukawa, and bush-clad inlets; significant natural features include a series of ridgelines with steep gullies and bush-clad escarpments.

North Shore City is coming under increasing pressure to accommodate additional development within the existing urban area. Retention of trees and bush on private land is a significant challenge in North Shore City with residential development and intensification, the development of smaller sites, and the building of larger houses. Continuing intensification is important for the evolution of more sustainable transport and other infrastructural systems. However, this will obviously affect the management of urban vegetation.

Introduction

Urban vegetation in North Shore City

Management of the urban ecosystem

Trees are often recognised as contributing to landscape and amenity values in an urban area, but their role in maintaining life-supporting processes and assisting the functioning of the urban ecosystem is seldom recognised.

The debate about tree protection on the North Shore has revolved around individual property rights relative to community rights and the common good, with a range of management options being considered. There is a need to shift the focus from individual trees to the management of the urban ecosystem, and to manage urban vegetation as a significant part of this ecosystem.

It is recommended that the North Shore City Council undertake a further series of education initiatives with local developers, consultants and the wider community to:

- a) improve understanding of the role and value (monetary and environmental) of urban vegetation;*
- b) improve the understanding of the requirements of the district plan and the council's approach to urban vegetation management;*
- c) provide information on how to improve the management of urban vegetation.*

Identification and assessment

The council has identified coastal vegetation, bush and some significant trees for protection under the district plan. However, there has been no ecological survey to identify significant natural areas and the biodiversity values of North Shore City.

It is recommended that the North Shore City Council augment previous evaluations by undertaking a detailed survey and assessment of urban vegetation and biodiversity (eg using the methodology for assessing protected natural areas).

Policies and plans

Policies and plans that address the management of urban vegetation are administered in several sections of the council eg planning, parks and roads. The council could investigate the preparation of an urban vegetation plan for the city to integrate vegetation management policies. The plan could address the management of coastal vegetation, bush areas, parks and reserves, significant trees, street trees and the planting of road reserves. The plan could include an urban vegetation policy to address replanting, restoration and rehabilitation of both indigenous and exotic species.

It is recommended that the North Shore City Council develop an urban vegetation plan to integrate all policies

and programmes for the management of urban vegetation across the relevant departments of the council.

Most of the case studies have illustrated that assessments of environmental effects (AEE) submitted by applicants for resource consents are often poor. There has often been little or no assessment of the effects of a proposed development in relation to the district plan and no assessment of effects on urban vegetation, unless the council required additional information.

Resource consent administration

The case studies also illustrated that the council only briefly evaluated some applications and the accompanying assessments of environmental effects. The council has often not produced adequate reports evaluating an application against the objectives, policies, rules and assessment criteria specified in the district plan. There is often a poor audit trail from the AEE to the council evaluation and the reasons for the approval of any application.

It is recommended that the North Shore City Council improve the processing and evaluation of resource consent applications involving urban vegetation through:

- a) requiring comprehensive AEE reports in keeping with the scale and significance of the actual or potential effects of the application to be submitted by resource consent applicants;*
- b) preparing comprehensive reports on applications in keeping with the scale and significance of the actual or potential effects of the application including an assessment against the objectives, policies, rules and assessment criteria that are specified in the district plan; and*
- c) using urban vegetation specialists for evaluation purposes where there are or may be significant effects on urban vegetation.*

The council does not conduct a regular audit of a number of randomly selected resource consent applications and council evaluations to assist in improving the quality of processing of resource consent applications. There is a performance measure in the 1997/98 Annual Plan for auditing of the processing of resource consents.

As signalled in the 1997/98 annual plan, it is recommended that the North Shore City Council conduct a regular audit of a number of randomly selected resource consent applications and council evaluations to assist in improving the quality of processing of resource consent applications.

Monitoring and enforcement

Since 1992 the council has attempted to establish a comprehensive monitoring programme but little work has been undertaken after the first year. The council reported on monitoring requirements in the proposed district plan in 1997.

It is recommended that the North Shore City Council establish a comprehensive monitoring programme of the state of urban vegetation (eg through the use of satellite or other imagery) and improve the level of compliance monitoring throughout the city.

Given the increasing level of development activity in the city in recent years, the compliance monitoring team, as presently resourced, is stretched to undertake all the compliance monitoring and enforcement action that is required. In some instances the council has left residents to monitor works on adjacent sites as demonstrated in several case studies. When the council is slow to respond to residents' concerns about possible illegal activity occurring at a site, residents may become frustrated about council's lack of effective action. Council processes to decide on any enforcement action against offenders who may damage or remove urban vegetation are lengthy. This has resulted in a loss of community confidence in the council enforcing district plan provisions and the conditions of individual resource consents.

It is recommended that the North Shore City Council streamline decision-making in respect of enforcement action and commit to using enforcement measures as a means of improving public confidence in district plan provisions and resource consent conditions that relate to the management of urban vegetation.

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1 INTRODUCTION

The Parliamentary Commissioner for the Environment's strategic plan *Future Directions* (Parliamentary Commissioner for the Environment 1997a) identifies the management of the urban environment as one of five significant environmental management areas to be addressed by the Commissioner over the next five years.

The focus on the urban environment has been supported by the release of the Commissioner's report on *The Management of Suburban Amenity Values* (1997b). The report identified a range of urban issues, and the significance of the maintenance and enhancement of amenity values¹ to councils and communities. Part of the report noted the importance that residents and communities place on the management of urban vegetation in assisting with the maintenance and enhancement of local amenity values.

In early 1997 the Parliamentary Commissioner for the Environment received thirteen expressions of concern (see chapter 1.4) about the management of urban vegetation in the North Shore area. These concerns related to both the management of urban vegetation and the protection of significant urban vegetation (eg notable or landmark trees and areas of regenerating bush) by the North Shore City Council.

After conducting initial inquiries into a number of the concerns, the Commissioner decided to investigate the wider issue of the management of urban vegetation in North Shore City, particularly from the long-term perspective.

Draft terms of reference were prepared in early July 1997, and these were circulated to the council, community boards, agencies and interested parties. There were very few comments received on the draft terms of reference. However, those comments that were received acknowledged that the management of urban vegetation in North Shore City was a significant issue.

It was proposed that several case studies would be examined as part of the investigation to illustrate significant issues affecting the management of urban vegetation in the city. Comments on the draft terms of reference suggested that a specific term of reference should identify the actual sites that would be examined as case studies. This was considered, but because the purpose of the case studies was to illustrate significant issues affecting the management of urban

¹ The term "amenity values" is defined in the Resource Management Act 1991 (RMA) as: *those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes (s 2 RMA).*

1.1 Background and methodology

vegetation in North Shore City, the case studies could be examined under the existing terms of reference. The final terms of reference for the investigation are in chapter 1.5.

In July 1997 the investigation team held very useful discussions with a range of agencies, groups and individuals in North Shore City to elicit information and views on long-term management requirements for urban vegetation. The team met with councillors from the planning and regulatory committees, council staff from the planning division, parks division, operational services, and members of four community boards. A number of community groups and individuals who had expressed an interest in the management of the urban vegetation of their neighbourhood or the city were also consulted. A list of organisations and parties consulted during this investigation is in appendix 1.

The investigation team visited many of the suburbs and specific developments in North Shore City to view existing urban vegetation and the effects and potential effects of residential developments on urban vegetation. The team visited the sites used for case study purposes (see chapters three and four) to observe the vegetation on the site and/or the development that was being undertaken.

In order to assess the management of urban vegetation in North Shore City, information was sought from the North Shore City Council on:

- the area and type of urban vegetation in the city and changes to urban vegetation;
- council policies and district plan provisions with respect to urban vegetation;
- urban vegetation strategies and implementation plans;
- council procedures for evaluating assessments of environmental effects (particularly long-term) with respect to urban vegetation;
- monitoring and enforcement undertaken by the council or the community; and
- specific resource consent applications and assessment of environmental effects relating to urban vegetation.

Information on specific resource consent applications was sought for nine sites (see chapter 1.4) that had been brought to the attention of the Commissioner. Eight sites were then chosen for case study purposes (see chapters three and four). **A random sample of resource consents was not appropriate because this was an investigation of site specific issues raised by concerned citizens. Therefore care has to be taken with extrapolating any conclusions based on the case studies.** However, the issues that are raised have been substantiated for these sites and, in addition, anecdotal information would suggest that the same or similar issues could be illustrated at other sites. Information on the total number of resource

consents for tree work that were processed by the council is contained in appendix 2.

Urban vegetation includes individual trees and groves of trees, areas of bush, “green belts”², parks, and reserves. It includes vegetation in either public or private space and, in some instances, the combination of these areas (ie the streetscape).

1.2 Nature of urban vegetation

Reasons for maintaining urban vegetation include:

- enhancement of visual amenity and landscape;
- provision of screening, shade and shelter;
- absorption of pollutants and carbon dioxide;
- enhancing soil and water conservation to assist sustainable land management and limit erosion and sedimentation of watercourses and marine areas;
- provision of ecosystem services³;
- provision of habitat for birds and insects; and
- protection of natural heritage values.

The relative importance of these reasons will change depending on the species, size and location of the urban vegetation (see diagram 1).

Urban vegetation can also have negative or adverse effects on surrounding properties including:

- blocking views;
- blocking sunlight and daylight to a property;
- root damage to roads, paths, pipes and foundations; and
- adding to maintenance costs.

The balancing of these positive and negative effects is at times a difficult judgement for decision makers and those seeking to manage urban vegetation. It is even harder if decisions are made in isolation from the consideration of ecosystem services.

North Shore City surveys of residents and business people

The North Shore City Council’s annual survey of residents’ and business people’s attitudes towards controls on the environment and neighbourhood show that more than 80 per cent of residents and business people support controls on tree and bush protection.

² A “green belt” is an area of land at the edge of the city that separates suburban/urban areas from more rural areas. A “green belt” will often contain remnant areas of native bush and may contain lifestyle block developments.

³ Ecosystem services are the functions performed by ecosystems that ensure natural cycles (of water, oxygen, carbon, soil etc) continue to provide an environment that is conducive with quality of life, including human life.

Diagram 1 Types, functions and values of urban vegetation



INDIVIDUAL TREE

Ecological Functions

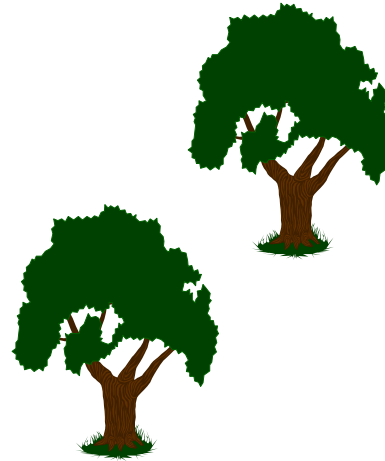
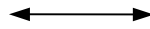
Minor contribution to:

- Local habitat
- Local slope stability

Amenity Value Functions

Contributes to:

- Local identity with important landmark and heritage values
- Local amenity values
- Local shade and shelter



GROVES OF TREES

Ecological Functions

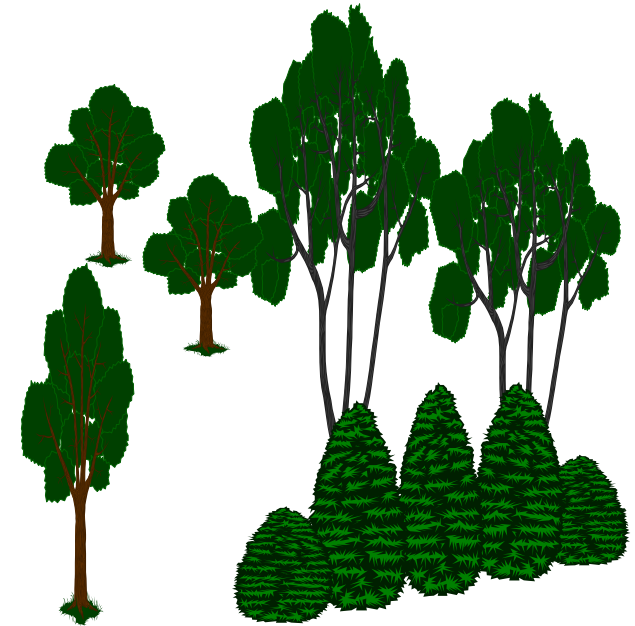
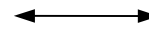
Moderate contribution to:

- Local habitat
- Local slope stability

Amenity Value Functions

Moderate contribution to:

- Local landscape
- Local amenity values
- Local shade and shelter



LARGE AREAS OF TREES OR BUSH

Ecological Functions

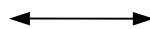
Major contribution to:

- Local habitat with biodiversity value
- Slope stability and soil and water conservation
- Absorption of CO₂

Amenity Value Functions

Major contribution to:

- Landscape values
- Natural character
- Amenity values of an area



North Shore City Council annual survey results

	Percentage believe North Shore City should have controls concerned with environment/neighbourhood									
	Residents					Business				
	1993 (501)	1994 (500)	1995 (500)	1996 (500)	1997 (503)	1993 (200)	1994 (200)	1995 (202)	1996 (200)	1997 (200)
(sample size)										
Tree and bush protection	84	86	87	81	82	87	90	85	88	82
Building form and design	68	72	75	68	65	78	80	64	74	70
Subdivisions	74	82	82	78	77	87	88	82	90	82
Noise control	79	81	84	78	82	89	92	82	88	85
Other nuisances	62	70	74	65	67	77	80	72	78	67

Those residents that are most supportive of the council having controls on tree and bush protection are those who have lived in North Shore City between five and nine years and those who live in a flat rather than a family home.

The satisfaction of residents and business people with the effect of controls on bush and tree protection has remained fairly constant with around 50 per cent of respondents believing that they are very satisfied or satisfied. In 1997 28 per cent of residents were not satisfied or not at all satisfied with the effect of the controls compared to 20 per cent in 1996.

North Shore City covers an area of approximately 12,500 hectares with more than 170,000 residents. The city is surrounded by the Waitemata Harbour to the south and west and the Hauraki Gulf to the east with over 160 km of coastline. The city contains striking coastal landforms such as coastal cliffs, sweeping sandy beaches and bush-clad inlets. Significant natural features include a series of ridgelines with steep gullies, bush-clad escarpments, volcanic cones and craters including the freshwater Lake Pupuke.

1.3 North Shore City

The residential areas of the city contain a wide variety of landscapes and built environments with markedly different character and amenity values. In certain areas, the character reflects the presence of natural features such as native bush, the coast, the lake or sea views.

Pre-European settlement vegetation and wildlife habitat have been significantly reduced on the North Shore with widespread clearance of vegetation (including kauri forest) for early farming purposes. With gradual suburban development, many areas have now been revegetated although the composition of the vegetation has changed as settlement patterns have changed. For example, Devonport now has many trees compared with the late 1800s when it was still predominantly clear farmland. In other parts of the city, the composition of vegetation is again changing as intensification proceeds. Some suburban areas with large trees and green spaces are

now becoming more urban with consequently less room for significant urban vegetation.

Significant habitats include:

- coastal wetlands such as the creek mangroves and salt marshes;
- freshwater wetlands comprising water bodies and raupo marshes;
- open coastal habitats extending from Long Bay to North Head; and
- a large number of areas of bush within urban and rural areas that are remnants of a more extensive cover (North Shore City Council 1996a p 14).

The city contains a number of bush areas that are remnants of the past more extensive forest cover and other areas of regenerating forest. The significance of the tree and bush cover has been described in supplementary information to the strategic plan:

The pohutukawa fringe makes a very significant contribution to the visual amenity of the city's coastline and helps to slow down the rate of natural erosion. The contribution pohutukawa trees make to the natural character of the coast is highly valued by residents as research had shown. The pohutukawa trees are a natural resource of regional significance which the plan seeks to protect. Areas of native bush contribute significantly to the landscape and visual amenity of the city as well as providing valuable habitat areas for native fauna and contributing to soil stability and to the quality of water in natural watercourses (North Shore City Council 1996a p 132).

Between 1991 and 1996 the city population grew by 12.8 per cent and high levels of development activity are expected to continue. The North Shore City's share of regional population growth is estimated to be 17 per cent resulting in 30,000 additional people over the next twenty years. The outward growth of North Shore City is constrained by regional urban growth limits as prescribed in the Auckland Regional Policy Statement. The regional council's consolidation and intensification policy means that the 40 per cent growth envisaged over coming decades will place increasing pressure on urban vegetation. The population growth in North Shore has resulted in an increasing demand for infill and redevelopment of existing residential areas and new development of bush areas and a few remaining sites on the coastal edge, which generally have difficult access and areas of mature vegetation. This demand has increased development pressure on sites with notable trees, coastal vegetation (eg groves of mature pohutukawa), and bush (eg the bush areas of Northcote and Birkenhead). The development of new suburbs from farmland on the urban fringe and landscaping of commercial areas contributes positively to the urban vegetation resource of the city.

In early 1997 the Parliamentary Commissioner for the Environment received thirteen expressions of concern about the management of urban vegetation in the North Shore area⁴.

1.4 List of critical issues

The initial issues relating to the management and protection of urban vegetation that were brought to the attention of the Commissioner included:

- the nature of management and protection provided by the council for coastal pohutukawa, indigenous bush and significant trees as part of residential development. The specific locations of these complaints were 20A, 22A and 24 Minnehaha Avenue, 4-8 Zion Road, 17 Clifton Road, 26 Park Avenue, 76 Shakespeare Road, and 16 Seacliffe Avenue;
- the nature of management and protection provided by the council for notable or landmark trees. Specific examples that were brought to the attention of the Commissioner included:
 - Holyoak Place, Birkenhead: in February 1997 a 120 year old oak tree was felled. The tree was part of a group of nine trees planted as part of the Chelsea Estate. It had been scheduled in the Birkenhead City Council's district scheme, but through an error the location of the tree was not correctly shown in the North Shore City Council district plan schedule of notable trees. The landowner was entitled to fell the tree without resource consent or any council or community input.
 - Pineridge Terrace, Takapuna: in February 1997 a 75 year old pohutukawa was felled. The tree was 2 m from the coastal conservation area where the felling of the tree would have required a resource consent. An arborist who had worked for the developer said that it did not have to be cut and it could have been trimmed to accommodate a house.
 - Glenvar Road, Torbay: in March 1997 resource consent was obtained for two pine trees to be felled. The trees had been protected under the transitional district plan provisions for East Coast Bays as they were greater than 8 m in height. The taller tree was also protected under the proposed district plan because it was covenanted as part of a subdivision in 1995;
- the identification and extent of evaluation of significant urban vegetation in North Shore City;
- the management of resource consent processes for urban vegetation by the council including decisions on notification, the nature of council evaluation of a resource consent application and the degree of coordination of building and resource consent applications;

⁴ The Parliamentary Commissioner for the Environment does not release the names of individual citizens who have made complaints about the performance of a public authority.

- the extent to which resources are made available for the enforcement of the district plan tree provisions relating to urban vegetation by the council;
- the clearance of urban vegetation by landowners prior to applying for resource consent approval for a development so that the vegetation cannot be protected by a consent condition;
- the inability of the community to protect significant urban vegetation if landowners do not agree to the vegetation being listed in the district plan; and
- the lack of suitable penalties for the illegal removal or modification of urban vegetation.

After visiting the North Shore area in July 1997, initial feedback was provided to the council and this focused on the following issues:

- the linkages between growth management policies, and the rate and nature of development and its impact on the management of urban vegetation;
- the identification of significant areas of urban vegetation;
- resource consent issues including notification decisions, the council evaluation of assessment of effects in the coastal conservation area and bush areas, and delegations to the community board subcommittees;
- the extent of council monitoring and the ability of the council to identify changes to urban vegetation in future years;
- the role of the community in undertaking enforcement action;
- reserve management by the Parks Department including the use of community volunteers;
- the council street planting policy; and
- education of the community as to the importance of urban vegetation.

Other issues raised during the investigation but not examined include:

- opportunities to establish large strategic reserve areas on Crown land (eg defence land that is no longer required by the Ministry of Defence); and
- additional penalties that could be imposed in enforcing the RMA.

1.5 Purpose and terms of reference

In accordance with section 16(1)(b) of the Environment Act 1986, the purpose of the investigation is to assess the effectiveness of environmental planning and management by the North Shore City Council in relation to the long-term management of urban vegetation in North Shore City.

This investigation in response to thirteen expressions of concern about the management of urban vegetation in the North Shore area is consistent with the priorities for investigation in the PCE strategic plan, and builds upon the work undertaken for the management of suburban amenity values report.

Terms of reference

1. To assess the effectiveness of environmental planning and management, particularly for the long-term, by the North Shore City Council with regard to the management of urban vegetation.
2. To identify areas of good practice in the management of urban vegetation, both in New Zealand and overseas, including approaches to avoid, remedy or mitigate any adverse environmental effects of an activity on urban vegetation.
3. To facilitate a workshop involving affected parties to discuss the draft findings and for affected parties to decide on a future course of action.
4. To report on the outcomes of the investigation, and on any recommendations to the council, by 30 November 1997.⁵

Approach

A case study approach has been taken with this investigation and urban vegetation issues were reviewed at eight sites (see chapters three and four). These sites had earlier been brought to the attention of the Commissioner and they were deliberately chosen for case study purposes (see chapter 1.1).

Criteria (see over) for assessing the performance of the North Shore City Council were developed as part of this investigation. The criteria have been used at the end of chapter six to summarise and assess the performance of the council (see chapter 6.6).

Chapter two of the report provides an overview of the North Shore City Council's policies and plans that relate to the management of urban vegetation. In particular, details of the provisions of the operative and proposed district plans are examined.

The effects of three proposed residential developments on Minnehaha Avenue, Takapuna, are examined in chapter three to illustrate significant issues affecting the management of urban vegetation in North Shore City.

1.6 Outline of report

⁵ Late responses to the draft report resulted in the workshop being held on 10 December 1997.

Table 1 Assessment criteria

Criteria for assessing North Shore City Council performance	
The extent to which:	
1.	the council has identified the nature of urban vegetation and, in particular, significant urban vegetation in the city environs.
2.	the council has developed policies and practices to manage urban vegetation.
3.	the council implements agreed priorities for the management of urban vegetation.
4.	the council monitors and reports on the state of urban vegetation.
5.	the council enforces planning provisions that provide for the management of urban vegetation.
6.	parties affected by the management of urban vegetation are meaningfully consulted by the council at appropriate times prior to final decisions being made.
7.	community action is encouraged by the council to manage urban vegetation.

Note: management includes identification, assessment, maintenance (eg planting and trimming), protection, monitoring, research and education.

Chapter four examines a further selection of residential developments to illustrate other significant issues affecting the management of urban vegetation in North Shore City.

Chapter five provides an overview of different approaches for the management of urban vegetation. Brief examples of “good practice” are provided both from New Zealand and overseas. The use of some of these approaches is then evaluated.

Key issues that relate to the management of urban vegetation in North Shore City are discussed in chapter six.

The report concludes with a series of findings and recommendations in chapter seven.

2. OVERVIEW OF COUNCIL POLICIES AND PLANS

The North Shore City Council was formed in 1989 with the amalgamation of the five former territorial authorities in the area, the North Shore Drainage Board and the North Shore Scenic Board. The city is split into six wards with a community board for each ward, ie Albany, Birkenhead/Northcote, Devonport, East Coast Bays, Glenfield and Takapuna (see figure 1).

2.1 North Shore City Council

While North Shore City has been one of the fastest growing cities in New Zealand, it has over recent years been in the lower third to a quarter of councils in terms of rating revenue, ie rates have been less per capita than 66 per cent of the other councils. As a consequence overall council investment in the city (expenditure per capita) has been low. The council has also undergone a major restructuring during 1994 and 1995 that particularly affected the Development Services directorate. Many of the case studies in this report were initially processed during this period.

The Council Policy and Planning Directorate is responsible for strategic planning, land use planning, the district plan, the annual plan, environmental monitoring and policy co-ordination. The City Services Directorate includes the environmental enhancement parks and beaches section. Operational Services includes the development services and the environmental protection sections. In September 1995 the council reorganised its land development services to form Development Services, which manages the provision of regulatory services.

The six community boards are responsible for:

- considering and reporting on all matters referred to them by the council or any matter of interest or concern to the community board;
- providing an overview of the delivery of services within the community;
- preparation of a submission to the annual plan of the council for expenditure within the community;
- communication with community organisations and groups; and
- performance of various functions delegated to them by the council including administering planning regulations.

The community boards have a major role in administering planning regulations and bylaws. Each board has a Resource Management

(Planning) Committee that has the power to hear and determine all notified and non-notified resource consent applications of local

Figure 1

significance. The committee is also responsible for powers in respect of abatement notices, enforcement orders and interim enforcement orders. A subcommittee (the chair and one other member) of the Resource Management (Planning) Committee is responsible for decisions on non-notified resource consents and it has the power to decide whether to notify resource consent applications of local significance.

The community boards also administer a minor discretionary capital fund for local projects (eg \$35,000 per community board in 1996/97). In 1997/98 the council increased board responsibilities by providing them with discretionary funding for local projects. The council has allocated a total of \$1.08 million to the boards for this new initiative.

Local Government Commission

The Local Government Commission has been reviewing the structure of the North Shore City Council. In June 1996 the Commission issued a draft reorganisation scheme including recommendations:

- that the six existing community boards be abolished;
- that three new wards with three new community boards be created; and
- prescribing the committee structure and restricting the powers of delegation to council committees and community boards.

The council challenged in the High Court the recommendations prescribing the committee structure and restricting the delegation of powers to community boards. The Court subsequently found that this part of the draft scheme was *ultra vires*.

In July 1997 the Commission released its final reorganisation scheme which included:

- the creation of three wards;
- the creation of six new community boards with four elected members and two appointed members;
- the provision for each community board to have such functions, duties and powers as are delegated to it by the council save that a board shall not have the power to hear, determine or consider any [resource consent] application referred to in sections 93 or 94 of the RMA (Local Government Commission 1997).

The Commission was not satisfied that the delegation of hearing and approval powers to community boards for resource consent applications was appropriate in North Shore City. The Commission believed there was a need to ensure that consent applications were dealt with in a consistent manner throughout the city, and this was more easily achieved if the council assumed responsibility for a central decision-making process.

In late August 1997 the council decided to appeal against the Commission's ruling that it could not delegate the power to hear, determine or consider any resource consent application to community boards. However, in early November 1997 an order-in-council was signed by the Governor-General at the request of the Minister of Local Government that brought the reorganisation scheme into force (*New Zealand Gazette* No 161 1997 p 3781).

Most of the transitional district plans of the former territorial authorities which now make up North Shore City contained schedules of protected trees. If a tree was scheduled in the district plan, then a discretionary resource consent was required from the council prior to any work being performed on or around the tree. A variation to the plan was required to add or remove a tree to or from the schedule.

2.2 District plan provisions

There were several exceptions to the above approach with:

- East Coast Bays: any work on or around vegetation over 8 metres in height (with several exceptions eg macrocarpa and citrus trees), pohutukawa trees over 3 metres in height in land abutting mean high water, and all trees on reserves, road reserves and proposed reserves requires a resource consent; and
- Takapuna: in the former Residential 1 and 2 zones a resource consent is required for work on all native trees in excess of 3 metres in height or with a girth greater than 200 mm.

In total, around 800 trees were scheduled in the transitional district plans. The original schedules of protected trees were derived from a variety of sources ranging from surveys by landscape architects in Northcote and Devonport, to a council officer's surveys in Takapuna, and public requests in Birkenhead. As the East Coast Bays transitional district plan relied on general tree protection, no trees were individually scheduled. The number of trees varied from 62 in Birkenhead to 566 in Northcote. Several of the scheduled items were for stands or areas of trees. The condition of the scheduled trees were inspected in 1991-1992 and again in 1997.

Selected district plan tree management regulatory approaches

There are a range of district plan regulatory approaches that can be used for the management of urban vegetation.

Zoning

Specific zones are identified for the significance and range of urban vegetation (eg the coastal foreshore or bush areas). Special provisions are then applied to the zone to ensure that the effects of any activity on the urban vegetation are considered as part of a resource consent application. Some activities may be restricted because of the significance of the vegetation (eg larger site sizes and setback areas).

General tree protection

A height and girth threshold is set with “general protection” for all trees above the threshold. The extent of the “general protection” is usually limited to requiring resource consent for works affecting a “protected” tree or within the vicinity of a “protected” tree. Selected tree species can be excluded from “general protection”. Emergency works or minor works (eg pruning) can be exempted from resource consent requirements.

Scheduling/listing of significant trees

Significant trees are usually identified for their heritage, landscape or botanical values. The trees are then specifically scheduled/listed in a district plan and any works affecting the tree or within the vicinity of the tree require a resource consent. The felling of a tree often requires the removal of the tree from a schedule/list and this is achieved through a variation to a district plan.

Proposed district plan

As part of the preparation of the new district plan the council commissioned a series of background reports and undertook a section 32¹ assessment of alternative options including assessing options for vegetation management.

As part of the section 32 assessment, a report was prepared on *Ecosystems - areas of significant indigenous vegetation and significant habitats of indigenous fauna in North Shore City* (1992). The report addressed coastal wetlands, freshwater wetlands, open coast habitats, terrestrial habitats and sites of special wildlife interest. The report stated that “North Shore does have a representative range of flora and fauna which are vitally important for a number of community uses such as recreation, water catchment protection, soil conservation, scenic beauty as well as for their intrinsic values” (North Shore City Council 1992).

The North Shore City proposed district plan was notified in October 1994. Policies to protect urban vegetation are addressed in several chapters of the plan although most are contained in the natural environment chapter with sections on coastal conservation, ecosystems and tree management.

Coastal conservation

The objective of the coastal conservation section is “to protect the natural character, public access, ecology and landforms of the coastal environment which is a matter of national importance”. Various policies include:

¹ A section 32 analysis involves consideration of the costs and benefits of a particular action and any alternatives; it is specifically required under the RMA before any objective, policy, rule or other method is adopted (s 32 RMA).

- applying a building setback or foreshore yard to protect natural features and ecological values of the coastal environment;
- requiring the provision of esplanade reserves upon the subdivision and development of land;
- protecting native coastal vegetation, in particular pohutukawa trees, for amenity and land stability purposes; and
- ensuring that development and activities in the coastal conservation area do not compromise or otherwise adversely affect the proper functioning of ecosystems, or adversely affect the natural coastal environment.

Ecosystems

The objective of the ecosystem section is “to protect and enhance significant habitats of native fauna and flora to maintain biodiversity; and for their intrinsic, educational and recreational values”. Various policies include:

- scheduling significant ecosystems and habitat areas in the district plan;
- identifying other recognised ecological areas as a matter of public information;
- ensuring that development in the coastal conservation area is located, designed and constructed so as to minimise the need for removal of coastal and estuarine vegetation; and
- limiting earthworks and vegetation removal affecting ecosystems and habitat areas.

Tree management

The objective of the tree management section is “to promote amenity values in both the urban and rural areas by maintaining and enhancing the tree cover present in the city”. Various policies include:

- protecting areas of native bush, which contribute significantly to the landscape;
- assessing and listing individual trees which merit particular identification and protection;
- protecting coastal native vegetation and pohutukawa trees in particular;
- protecting trees with ecological, landscape or amenity significance; and
- allocating resources for information and advocacy.

The plan states there were two important aspects to maintaining a reasonable tree cover:

1. tree planting must be actively encouraged; and
2. information must be available to help the community manage trees on private land.

At the time of notification, the proposed plan provided for the management and protection of trees through general tree protection with:

- protection of pohutukawa greater than 2 metres in height in the coastal conservation area and in the area of the Lake Pupuke site of geological significance;
- general tree protection for native (indigenous) trees over 8 metres in height and 600 mm in width at 1.4 metres above ground level;
- protection of native trees within the foreshore yard or lakeshore yard (within 30 metres);
- protection of trees that are subject to a covenant or resource consent or subdivision consent conditions; and
- protection of any tree or group of trees in association with a scheduled heritage item or the Residential 3 zone.

Any cutting, alteration, partial or complete destruction of the above vegetation was a discretionary activity with no application fee charged in the first instance by the council. Exceptions to the rule included minor trimming or maintenance and activity immediately necessary to avoid injury.

As an explanation for the height criteria of 8 metres it was noted that these trees often make a significant contribution to neighbourhood amenity values. For the trees in the coastal area it was noted “whenever a continuous canopy along the coast can be retained, consideration of this should be a priority. The removal of mature pohutukawa trees within this area will generally not be approved by the council” (North Shore City Council 1994a).

The plan also provided for the protection of trees on the schedule of notable trees in the proposed district plan. Any cutting, alteration, partial or complete destruction of any notable tree or work within the dripline of a notable tree was a discretionary activity. Any alteration to this schedule must be by way of a plan change. Trees on road or public reserves were also protected and any work required a consent for the discretionary activity.

The plan specified a list of assessment criteria for discretionary activities including:

- a) the degree of necessity for carrying out the activity;
- b) the extent of the trimming and maintenance of the tree and the method to be employed;
- c) in the case of native bush areas, whether the integrity of the bush will be adversely affected;
- d) any alternative methods available to the applicant in the achievement of their objectives including consideration of an application for flexibility in respect of any development control where this would encourage retention and enhancement of existing large trees on a site;
- e) whether the tree can be relocated;
- f) in the case of pohutukawa in the coastal conservation area, whether the continuous canopy will be interrupted;

- g) whether or not the proposed activities within the dripline are in the opinion of the council likely to damage the tree or endanger its health;
- h) where the removal or destruction of a tree is proposed, the council must be satisfied that circumstances exist to warrant removal;
- i) the extent to which the tree or area of bush contributes to the amenity of the neighbourhood both visually and physically, including use as a habitat for birds and other animals;
- j) any function the tree or area of bush may have in conservation of water and soil; and
- k) whether proposed landscaping or revegetation can compensate for any loss envisaged.

Residential provisions

Several of the residential zones provide for greater levels of vegetation protection through the zone provisions (see next table).

The district plan identifies several factors that contribute significantly to residential character including the quality and character of the built environment and the “treed” character of neighbourhoods, which is derived from both private on-site and public streetscape plantings.

Structure plans

The council believes that the management of urban vegetation in areas identified for future residential development will be enhanced by using a forward planning approach. The proposed district plan addresses future urban expansion in several identified areas by not providing for major subdivision until, firstly, a structure plan and, secondly, a neighbourhood unit plan have been completed for the land. This two tier planning process is hoped to achieve a comprehensive and environmentally responsive approach to development in Greenhithe/Schnapper Rock Road, Okura and the Oteha Valley. The structure plans will include a land analysis of environmental values including streams and associated vegetation, native bush and mature trees, areas of ecological significance and important coastal features. There is provision for widespread consultation before the structure plan will be incorporated into the district plan.

Characteristics of main urban residential zones

Residential zone	Description	Site density: minimum net site area per unit	Notes
2A: native bush areas	Urban areas with important natural values including regenerating bush, forest remnants and riparian vegetation. Good quality bush in large undisturbed tracts.	2A 800 m ² 2A1 5000 m ²	Subdivision is a discretionary activity. Controls on siting of buildings, covenants to protect bush subdivision. A Residential 2A1 applied to three areas which cover large discrete blocks of bush with significant ecological values.
2B: amenity areas	Larger sites with trees or coastal location and includes extensive areas adjacent to the coast and Lake Pupuke.	600 m ²	High standard of natural amenity. Larger lot sizes with significant number of mature trees and a large open space.
2C: Eadys bush	A small area of bush adjoining and forming part of the Eadys Bush reserve. This protection line resulted from a decision of the former Planning Tribunal in 1983.	1 unit per 350 m ² of net area of parent site	Bush protected through the Eadys Bush protection line. No tree could be trimmed, cut, removed or damaged in any way. No buildings could be established in the area.
3A-C	Built heritage	3A 400 m ² 3B 500 m ² 3C 600 m ²	Location and extent of areas of significant built heritage value in Devonport, Northcote and Birkenhead.
4A 4B	Main residential area	450 m ² with bonus with resource consent	Areas of conventional urban character. Recognises the need for development while retaining and sustaining a good level of amenity and environmental quality.
5	New development	1 dwelling per site	Large blocks of unsubdivided land areas where one house per site is maintained.
6	Intensive housing	Provisions of 4 apply except on sites > 1500 m ² where intensive housing can be built with consent	Provision of a node based around an existing activity centre with access to public transport.

Submissions on the tree protection rules in the proposed district plan

The council received 346 points of submission in relation to tree management (see below). A wide variety of submissions was received by the council on the issue of general tree protection with some residents believing that no tree protection controls were required on private land, through to others who were of the view that all mature trees should be protected.

Point of submission	Number of submissions
Against any protection	70
For a general protection (natives and exotics)	101
For a general protection (natives only)	25
For a schedule only	21
For bush protection	4
Against bush protection	10
For coastal vegetation protection	6
Against coastal vegetation protection	29
For controls on trees	6
General matters	74
TOTAL	346

In July 1996, after considering submissions on the proposed district plan, the district plan hearings committee resolved to remove the general tree protection provisions. “The reason for this decision are [sic] that it is the intention of the council to promote good tree management and encourage tree planting through education and incentives rather than through regulation” (District Plan Submissions Committee, decision notice 42/4/D/11 July 1996).

The decision to remove general tree protection from the district plan was then appealed by The Tree Council. This appeal has to be heard by the Environment Court.

Another provision removed from the district plan was the expected environmental result for tree management: retention of trees within residential areas as assessed from five yearly aerial photographs.

The district plan committee also resolved that the height limit for protected pohutukawa in the coastal conservation area would be raised from 2 to 3 metres. In declining submissions in opposition to coastal pohutukawa tree protection the committee stated:

The reasons for this decision are that pohutukawa trees are a particularly important component of the natural character of the coast and serve an important function in protecting coastlines against erosion. It is important to protect a new generation [of pohutukawa] to replace old trees. However the height criterion will be amended to be 3m or more in height. As to compensation for the loss of development rights, there is no compensation payable in respect of controls on land and this includes tree protection controls (District Plan Submissions Committee, decision notice 42/3/D/10 July 1996).

The proposed district plan contained a rule that any cutting, alteration, partial or complete destruction of any native vegetation within the 30m foreshore yard, or within the 30m lakeside yard was a discretionary activity. After hearing submissions the committee amended the rule to “any native vegetation within the foreshore yard, and any vegetation (excluding invasive weed species) within the 30m lakeside yard”.

The reasons for this decision are that the protection for coastal vegetation is to be defined by the limits of the foreshore yard and this may vary throughout the City, as the intention is to protect plants which perform an important coastal function such as contributing to the natural character of the coast or preventing erosion. It is, therefore, not sufficient to protect trees of a certain size as ground covers also perform an important function (District Plan Submissions Committee, decision notice 42/5/D/12 July 1996).

Subsequently in explaining its decisions, the council has commented that:

- North Shore City has a generally good record of tree protection even where previously few rules have been in place;
- the council believed that an “urban forest” was more likely to be achieved through education and investment in tree planting rather than relying on regulations;
- a number of submissions argued forcefully for a notable trees list which has worked well within North Shore City and other areas of New Zealand; and
- the infrequent case of a mature tree within the city being removed was outweighed by many more which are planted every day by both residents and the council’s own planting programmes. The council has invested \$225,600 to plant a further 33,700 trees in the 1996/97 financial year (*North Shore City News* April 1997).

In June 1997 the East Coast Bays Community Board resolved that it request the council to initiate a variation for the proposed district plan to encompass the East Coast Bays transitional plan’s rules and objectives in regard to trees including both exotics as well as natives (ie a return to general protection for all trees over 8 metres with several exceptions (eg macrocarpa and citrus trees)).

In July 1997 a 1395 signature petition calling for the district plan to be amended to provide for general protection of all trees over eight metres was presented to the council by concerned residents from East Coast Bays.

ling of trees in the district plan

The proposed district plan was notified in 1994, 85 trees were included in the schedule of scheduled trees. This schedule was derived from resurveying the trees on the existing schedules in transitional district plans and “casting around” for any notable trees that had been overlooked. Trees were assessed using a modified version of the Royal New Zealand Institute of Horticulture assessment method. The final schedule in the proposed plan included those visually most important, historic trees and rare or unusual trees.

In 1996 after the council decided to remove general tree protection, the transitional district plan schedules were then reinstated with a total of more than 800 trees scheduled in the proposed district plan.

From July 1996 and the end of February 1997 more than seventy applications were received by the council for trees to be added to the schedule. However, no trees have yet been added to the schedule. No applications to schedule trees were initiated by the council.

The council invited the community to put forward trees worthy of inclusion in the schedule and 90 trees were nominated for consideration by the council. A variety of trees was nominated including native and exotic species, young and mature trees, stands of trees and areas of bush. Half of the nominated trees were on property not owned by those seeking protection. Many trees required confirmation of their correct identification and location, and landowners had to be approached to seek their approval prior to securing the protection of the trees.

In 1997 advice was requested from the Resource Management (Planning) Committee as to how the council wished to proceed with the addition of trees to the schedule in the proposed district plan. Options for proceeding were presented to the committee: consider owner nominated trees only; consider all nominated trees; assess trees using criteria or consider the nominated trees plus a comprehensive survey of the city. “If a comprehensive survey were to be carried out to ensure that trees worthy of protection had been assessed and that the Schedule was accurate and up-to-date, the council would be in the strongest position of being able to defend its tree protection approach” (to Resource Management (Planning) Committee 1 May 1997).

In the 1997/98 draft annual plan, provision had been made for a comprehensive tree study. On 1997 members of the Planning Committee moved that the council undertake a comprehensive survey. It was then moved that the question of a comprehensive survey be deferred until all 490 trees already nominated have been assessed. Debate ensued until it was resolved that the item of survey be lie on the table until the next meeting.

The committee met again on 5 June 1997 and it was resolved “that all nominated trees and those that come to the notice of officers be considered subject to appropriate criteria, but council not grant protection unless owners’ consent is obtained, and all the above trees require confirmation of correct identification and location.”

The schedule is now updated on to a database. All trees have been reassessed and 37 trees are to be added by way of a variation to the plan. This increases the number of trees scheduled to more than 800.

2.3 Other policies and approaches

Strategic plan

The North Shore City Council strategic plan was adopted in January 1997. The 20 year plan provides an overall vision and direction for the council to manage change through the setting of long-term goals and allocating resources. The council has four strategic outcome areas: community enhancement, environmental enhancement, city enhancement and council services (North Shore City Council 1997a).

Strategic outcomes for environmental enhancement are:

- a distinctive and attractive city;
- a broad range of living and working opportunities; and
- a sustainable natural and physical environment.

The strategic vision for environmental management includes:

- new development sensitive to the natural environment with the intrinsic values of the built environment protected and enhanced;
- a city where the qualities of the natural environment are recognised and contribute in a significant way to the unique lifestyle of city residents;
- a city where the parklands and beaches fulfil a range of leisure, conservation and amenity needs which recognise the value, diversity and quality of the city's natural environment which is managed so that it can be sustained; and
- a city where the effects of flooding, erosion and water pollution are minimised.

Annual plan

The council is committed to a programme of land acquisitions for reserve purposes and it proposed spending \$5.585 million in 1996/97 including a \$3 million loan. The council sought approval from residents to undertake a special reserve-land purchase programme to be financed by the loan. However, the use of the loan was not approved with the vote lost by a 1% margin. This reduced the fund to \$2.585 million. During the 1996/97 financial year the council spent \$216,000 on planting trees.

The 1997/98 annual plan has also provided for land acquisition of \$1.8 million to buy land to create additional reserves for the city, including the fast growing Albany area. The ten year prediction in the strategic plan is for \$13 million to be spent, with an additional \$10 million for the purpose of acquiring a green belt for the city.

The council is proposing to spend \$105,000 on street tree planting: in Birkenhead (\$5000), East Coast Bays (\$10,000), Glenfield (\$15,000) and Takapuna (\$5000); design and improvements of the Greenhithe common (\$40,000); and completion of landscape works on the Albany/Oteha Valley Road intersection (\$30,000) (North Shore City Council 1997b). In future years the council is proposing to spend \$90,000 per year on street planting. Local community boards are

actively involved with promoting street tree planting and responding to the wishes of the community regarding the selection of tree species and areas to plant.

North Shore City park land strategy

North Shore City has around 495 parks including 80 sportsfields, 95 playgrounds, many scenic bush reserves and 30 beaches. Other civic assets include areas such as gardens, street trees and grass areas on city streets.

The city park land strategy was adopted by the council in July 1994 (North Shore City Council 1994b). The strategy details the city's current park resource, strengths and weaknesses, and trends affecting park provision. Reasons why the council should promote the provision of parks included:

- to provide open space for people to pursue recreational activities for their social, mental, spiritual and physical wellbeing;
- to protect and maintain some of the history (ecological and human) and character of the area. This includes protection of bush areas, beaches, estuaries, wildlife habitats, waahi tapu and historic sites; and
- to provide visual relief and assist in shaping the form of the city.

Common issues identified in the strategy were:

1. the need to plan ahead: identifying land worthy of acquisition or protection prior to development;
2. managing the people/environmental interface: overuse and damage needed to be addressed; and
3. funding acquisition, development and maintenance.

The study noted that “although North Shore City has some significant bush areas within its urban boundary these represent only a very small remnant of what used to exist”. There are currently low levels of conservation/preservation land in Devonport, East Coast Bays and Takapuna compared with Glenfield (81 ha) and Birkenhead (92 ha). The new council focus on the purchase of reserves is intended to address these issues.

Coastal esplanade reserve policy

In March 1995 the council requested a consultant surveyor to determine a legally and environmentally sustainable basis for the provision of esplanade reserves around the coastline. A coastal study report was completed in November 1996; it identifies the characteristics and constraints of each section of coastline and recommends appropriate foreshore yard and esplanade reserve requirements. The six community boards will now undertake public consultation with their community about the provisions in the study.

Voluntary parks advisory committees

A number of parks, particularly in the Birkenhead/Northcote area, have voluntary parks advisory committees that work alongside the council in managing local parks.

Public education

In November 1996 the council released an updated guide to the management of urban trees. It was issued to all libraries, area offices and to residents who requested information. The guide covers tree planting (eg site analysis and appropriate species) and tree care including guidelines for work in the vicinity of trees. The council has also released a guide on the management of native bush.

Monitoring

In 1992 a North Shore environmental scoping study prepared for the council identified the following natural resources as a priority for management and monitoring:

- landform and geological features;
- bush remnants and regenerating forest areas;
- water quality of both freshwater and marine resources;
- air quality; and
- freshwater and marine biota (Kingett Mitchell and Associates 1992).

In 1992 council monitoring programmes focused on beach water quality, freshwater quality, freshwater species, marine shellfish and waste water treatment. It was then proposed to the planning committee that the programme be extended to include the area and quality of native bush and mangroves along with biological inventories and an assessment of the coastal area for erosion and coastal structures (Environmental monitoring - natural resources report to the Planning and Regulatory Committee, December 1992).

By November 1993 key indicators of land use change, changes in the quantity and quality of native bush, changes in the population numbers of native birds and changes in species occurrence had been selected. Land use change was documented in the 1993 monitoring report as shown below.

Land use categories			
	(1989)	Hectares 1993	Percentage of total land area
		12,500	100%
fields or undeveloped	(1823)	1658	13.3%
	(817)	804	6.4%
escape protection		813	6.5%
- landfills, golf courses,atorium, Long Bay Regional Park		343	2.7%
tal		3618	
ce - urban		8882	71.1%
TOTAL		12,500	100 %
a - not developed	(460)	190	1.5%
e bush/shrub		1306	10.5%
roves		147	1.2%

Notes: Reserves in general are included in the balance of land together with other urban uses.

311.5 ha of the native bush is land vested as reserve and 995 ha is in private ownership. However, as reserves contribute only 25 per cent of vegetation in the city, clear policy for the whole of the environment is needed.

District plan monitoring

The district plan monitoring report was released in October 1997. This report responds to the monitoring requirements set by the proposed district plan. The council's five year monitoring programme proposes that land use surveys be undertaken on a biannual basis and residential land use surveys be undertaken every five years. Coastal aerial photographs and native vegetation surveys will be undertaken every five years.

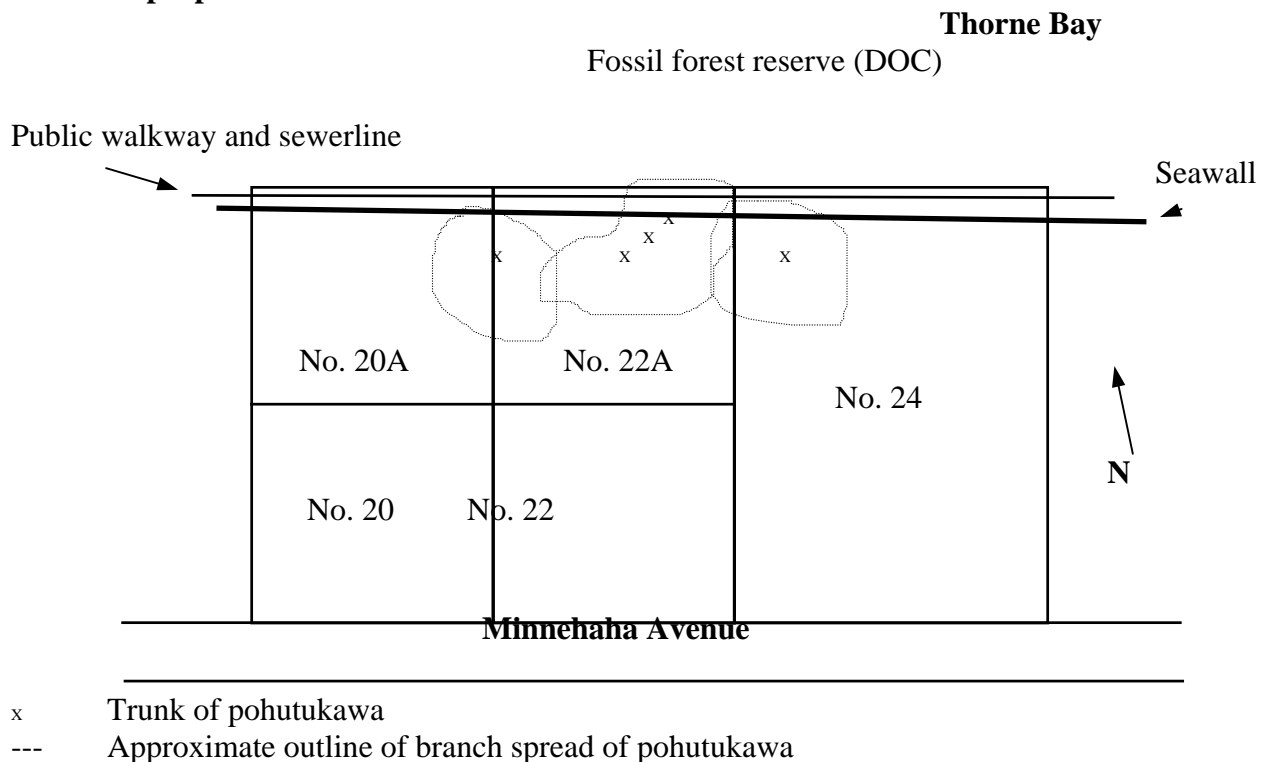
3 CASE STUDIES - MINNEHAHA AVENUE

This chapter examines proposed residential developments at several sites on Minnehaha Avenue, Takapuna, in order to illustrate issues associated with the management of urban vegetation in North Shore City.

The sites are located in the south-eastern corner of Thorne Bay, where a grove of five pohutukawa trees provides a large and continuous canopy of tree cover along the foreshore. The grove of trees is an outstanding example of the former coastal forest that was once prolific along the North Shore coastline. Some of the trees are thought to be around 200 years old and they are a significant feature of the local coastal environment of Thorne Bay. One of the trees is located on 24 Minnehaha Avenue with the other four trees located on 22A Minnehaha Avenue, although one of these trees substantially covers the eastern side of 20A Minnehaha Avenue.

In the 1920s a sewer pipe (encased in concrete) was constructed around the perimeter of Thorne Bay and the top of this pipe is used as a public walkway.

Sketch of properties on Minnehaha Avenue



3.1 Residential development, 20A Minnehaha Avenue, Takapuna

When the original property was subdivided into two sites in the late 1980s, access to the rear site (number 20A) was provided by a right-of-way, a 3 m wide by 33 m long access strip between numbers 20 and 22. The seaward rear site (area of 506 m²) was some 11 m below street level and the canopy of a mature pohutukawa tree covered part of the eastern side of the site. An old cottage was on the site and there was a seawall along the beachfront. Part of the site was on the seaward side of the wall (around 65 m²) and this land was covered by a concrete footpath over an old sewerline.

Resource consent application

In December 1994 a resource consent application was made to construct a three story dwelling on the rear site to replace the existing cottage. The application infringed the 3 m rear yard, height to boundary, building length and foreshore controls. Site works in the coastal conservation area would be necessary with excavation exceeding 30 m³ to form a 1 in 4.5 gradient driveway with retaining walls against neighbours' boundaries exceeding 1.2 m in height. Consent was also required for an excavation to form the platform for a new house. The approval of affected neighbours was sought but not obtained.

The brief impact assessment (1.5 pages) noted:

It is considered that the impact of effects is genuinely minimal in this instance because of the establishment of the rights-of-way and the agreements made at the time, which run with the land.

Further, the significant slope of the land minimises any impact in regard to height in relation to boundary.

The assessment noted the need to maintain structural stability of the neighbouring houses during excavation and construction of the driveway, and a geotechnical report addressed these issues. No report was provided on the effects on the protected pohutukawa tree.

The council was unwilling to proceed with this application on a non-notified basis due to the lack of written approval from immediate neighbours. In March 1995 the application for resource consent (non-complying activity) was notified by the council. This resulted in eleven submissions opposing the application because of the degree of non-compliance, the bulk and scale of the building was out of character with the site, and effects on the vegetation. All submissions sought that the application be declined in its entirety or redesigned to meet all performance standards or reduced in size, bulk and height.

In May 1995 a detailed written report (12 pages) was prepared by a council resource consent planner on the application explaining the proposal with a summary of submissions. The council's conservation planner was requested to consider the effects of the proposed dwelling

on the tree and subsequently recommended that protective measures should be taken during construction to avoid damage to an overhanging limb. No excavation was to occur within 3 m of the trunk on the neighbouring property.

On 14 August 1995 the council granted the application in part for the reasons that:

1. the yard infringement to the degree permitted by conditions is provided for within the dispensation and controlled flexibility provisions of the district plan. Such conditions will not be contrary to the plan's provisions and are necessary to permit reasonable and practical development;
2. in reaching this decision, the committee took into account the applicant's long-held expectations to build within the limits of the foreshore yard provisions of the operative plan. Even so, in regards to the coastal conservation area, consideration has been given to external finishes that will harmonise with the coastal environment... Apart from the overlapping pohutukawa tree the site does not possess intrinsic values that could be lost through the site's development;
3. there will be no more than a minor environmental impact where development of the site occurs in a sensitive manner. Changes to the landform are necessary to provide site access and create a building platform. The physical and visual impact of these changes will not be adverse and can be controlled by conditions of consent;
4. any effect to the root system of the protected tree will be minor. Only a small percentage of the total tree root area will be affected by the foundations of the house while prevention of excavation within the full three metre eastern rear yard will compensate for the minor intrusion [*on to the tree roots*]; and
5. building within the three metre rear yard would be an over-development of the site. The house would be too big and too high, negating the purpose of the yard, height to boundary and building length controls. Only a minor relaxation to such controls could be considered.

Various conditions were attached to the consent including retention of existing ground levels and vegetation for the full length of the eastern three metre yard, and a landscape plan needed to be submitted for the committee's approval.

Appeal

The decision of the council was then appealed to the Planning Tribunal (*MacRae & Grace v North Shore CC* proceedings RMA 976/95 and RMA 985/95). Following mediation, the Tribunal issued

a consent order for the construction of the dwelling on 31 May 1996. The North Shore City Council was required to appoint an arborist to prepare a report identifying the root system of the pohutukawa tree located on the adjoining property at 22A and a strategy to protect the pohutukawa tree from damage or destruction during the construction of the proposed dwelling and associated works at 20A. The construction of the driveway was to be undertaken in a manner that provided reasonable protection to the roots of the tree. A further condition of the consent provided for arbitration to resolve any dispute over the protection of the tree.

After this decision there were various meetings and discussions on the proposed development between the landowner, an adjacent resident and the council over a twelve month period. On 28 July 1997 a pre-arbitration conference was convened by Judge Bollard with Commissioner Easdale. The result of the conference was an agreement in principle that the commissioner arbitrate upon whether construction work for the proposed dwelling and driveway as provided for in the intended plans takes adequate account of the aim to protect the pohutukawa tree, bearing in mind that a dwelling is intended to be constructed on the site in terms of the consent order. If the construction work would not take adequate account then the consent holders would have the opportunity to amend their plans in response to the arbitration with a view to reconvening at a later date.

The arbitration (*MacRae and Grace v North Shore CC* 24 September 1997) resulted in the design plans being amended to reflect the fully suspended construction of the proposed vehicle entry and a memorandum being required on the specification of the works that would be undertaken and the sequence for the driveway construction. The award did not extend to removal of any of the tree canopy. It was believed that the proposed construction could be accommodated on the site without causing significant damage to any protected pohutukawa tree in the vicinity.

Summary of issues from the case study

Issues of relevance from the case study include:

- the lack of assessment of the effects of the proposed development on the protected pohutukawa tree by the applicant;
- the lack of assessment of the cumulative effects of the individual development proposal on the overall environmental health and amenity values of the grove of pohutukawas; and
- a lengthy and costly court process for the applicant, a local resident and the council.

In 1990 the property at 22 Minnehaha Avenue was cross-leased into two sites and new titles were issued for Flats 1 and 2.

In early February 1993 the landowner applied for a resource consent to reduce the esplanade reserve and remove a limb of a pohutukawa tree as part of the construction of a new dwelling on the seaward site. Written approval of adjoining neighbours was provided with the application.

Resource consent approval

A detailed report (four pages) on the application was prepared by a council planner for the Takapuna Community Board Planning Subcommittee. On 25 February 1993 the non-notified resource consent to reduce the esplanade reserve (see Box 3.1) and remove the tree limb was granted by the subcommittee. The reasons for granting consent to trim the limb of the tree were that:

- i. the trimming of the tree limb that projects back towards the centre of the site is likely, so as to permit reasonable development relative to the site's development potential;
- ii. the view of the tree from public areas and the neighbouring properties will not be significantly modified due to some trimming. The tree is screened by surrounding pohutukawa and the branch likely to be removed faces away from the beach area.

The consent was subject to several conditions including:

1. that the number of branches to be severed from the limb shall be determined by Council's Chief Planner in consultation with the Council's Conservation Officer at the time of framing the proposed residence. A final determination will be made on site at this time in a manner that seeks to retain as much as possible of the tree limb without compromising the size of the proposed dwelling;
2. no work shall be undertaken on the tree until the house is under construction. Precise surveyed heights and position of the limb shall be provided at the time of permit which indicate that area of canopy compromised by the building's position.

3.2 Residential development, 22A Minnehaha Avenue, Takapuna

Box 3.1 Reduction of the esplanade reserve at 22A Minnehaha Avenue

It was initially believed by the council and the Department of Conservation (DOC) that adjacent to the seaward boundary of the property was a marginal strip owned by the Crown. In March 1993 the council advised that it would request the Minister of Conservation's consent to waive the esplanade reserve provision for the site. The council was satisfied that the value of the esplanade reserve would not be diminished. In lieu of any setback the applicant should retain the open setting of the 9 metre foreshore yard clear of structures exceeding the height of 0.6 metres.

DOC was then approached by the council about a waiver of the requirement for an esplanade reserve but DOC was reluctant to agree to this.

In July 1993 a council planner submitted to DOC that the Takapuna Community Board Committee had reconsidered the issue and confirmed the decision to reduce the reserve. The “removal of even a few metres in depth of land from the site is likely to severely limit its development potential and subsequent value. This half site is presently on the market for a price in excess of \$700,000 and the Council’s Committee believes that the potential financial hardship should be considered within the exceptional circumstances of section 405(3)(b)....Because of the special circumstances the Committee believes that it would be unwarranted to seek further land and that the reduction can be supported in terms of the legislation.”

In September 1993 DOC then informed the council that “there would be merit in having several metres of land on the inland side of the existing wall in public ownership to provide a recreational space which would enhance the amenity of Thorne’s Bay”. It was noted that the council report concerning the request for a reduction in the esplanade reserve does not appear to consider any public benefit of public recreational use and only the question of public access was mentioned.

Following further correspondence, in April 1994 DOC advised that the provision of an additional 5 metres of land was required inside the stone wall and the council’s application seeking to reduce the esplanade reserve down to that area between the existing marginal strip and the existing sea wall was declined. The effect of the requested 5 m esplanade strip as well as the foreshore yard of 9 metres made the seaward half of the subject site unavailable for building.

DOC believed that “given the North Shore City is one of the most densely populated areas in New Zealand and that this will be the last opportunity for many years to acquire any land suitable for recreation in this vicinity, it is difficult to concur with Council’s recommendation that the provision of any land behind the stone wall would not provide any conservation benefits”.

Subsequently, DOC was informed by DOSLI that the site (number 22A) did not extend to mean high water spring but was separated by unalienated Crown land. Number 22A did not border a marginal strip but unalienated Crown land and so DOC was unable to have any statutory role in proceedings. As the unalienated Crown land bordered the Takapuna Reef Fossil Forest, DOC then requested the consent of the Commissioner of Crown Lands to set aside the unalienated Crown land for a recreation reserve. This was approved and the *Gazette* notice was issued on 23 October 1997.

Application to extend the resource consent

On 1 March 1995 the consent holder applied for a resource consent to construct a dwelling within the 30 m foreshore yard and to construct a retaining wall over 1.2 m in height along part of the eastern boundary. The application also requested that the resource consent for trimming the pohutukawa branch be extended for a further two years. The applicant

had obtained the written approval of neighbours at 20A and 24 but other neighbours had not given approval.

On 10 March 1995 the Takapuna Community Board Planning Subcommittee resolved that the resource consent to trim the pohutukawa and construct a retaining wall be extended for a further two years. The consent to construct a dwelling within the 30 m foreshore yard was granted for the reasons that:

- i. the application has separate titles and an existing residential building on the property;
- ii. the owner has a reasonable long held expectation of building the proposed dwelling in relation to the 1993 resource consent; and
- iii. the consents of those parties deemed to be affected have been obtained.

Also in March 1995 the council was requested to issue a certificate of compliance for the proposed residential development plans submitted in February 1993 and this was issued on 16 March 1995.

Note: Certificate of compliance

A certificate of compliance may be issued only for a permitted activity or one that does not require a resource consent (eg a lawfully established existing use). A certificate may not be granted in respect of an activity which was a permitted activity, but is no longer a permitted activity at the time the application for the certificate is made.

Usually the sequence of events is as follows:

1. the building of a house on the site is permitted under the provisions of the operative plan;
2. the owner of the site applies for a certificate of compliance in respect of his or her planned development;
3. the proposed plan is notified and renders the development a non-complying activity; and
4. provided the owner of the site commences the activity within two years of the date the certificate was granted, he or she may continue with the activity notwithstanding the change in the rules brought about by the proposed plan.

In the case of the certificate of compliance issued in respect of 22A Minnehaha Ave, it appears that, although the proposed plan was notified in October 1994, a certificate of compliance was issued in March 1995 on the basis that the activity would have been permitted if it had been undertaken before October 1994. This is an incorrect application of s 139 RMA which provides for certificates of compliance.

Revised development plans and consideration of further information

Revised dwelling plans and an arborist's report were submitted to the council on 29 October 1996. On 1 November 1996 the council confirmed that the proposed house modifications were consistent with the resource consents extended 10 March 1995 and the certificate of compliance dated 16 March 1995. The council considered that the modifications were covered by s 10 RMA that provides for protection for existing use rights and the use was lawfully established by means of the existing resource consents and certificate of compliance.¹

However, s 10 RMA applies only where there has been a change in the rules since the activity was established. There does not appear to be any question of an existing use within s 10 RMA.

A council officer informed the consent holder that the previous consents had not addressed the issue of construction beneath the dripline of the protected pohutukawa trees or some of the excavation for the proposed dwelling. Resource consent would need to be obtained for these works. The council officer stated:

I do not perceive any environmental concerns with this activity however, the details of the retaining [wall] along the lease boundary of the [neighbours'] site will need to be provided as part of such a consent. As this area is completely hidden from view, I do not believe that any other persons would be affected and such an application should likely be processed on a non-notified basis (Letter from the NSCC, 1 November 1996).

A building consent application for the concrete slab floor and foundations associated with the new design was also submitted on 29 October 1996. The council responded that, as the proposed building would require excavations more than 5 m³, a further resource consent would be required. An arborist's report would be required to address the trees to the north of the slab. This report showed the canopy before and after pruning. The sketches suggested that the full extent of the pruning would be more than that provided for in the existing resource consent.

In December 1996, following a site visit, a council officer wrote to the consent holder stating:

¹ The RMA provides for certain existing use rights. Land may be used in a manner that contravenes a rule in a district plan or a proposed district plan if the use was lawfully established before the rule became operative or the proposed plan was notified and the effects of the use are the same or similar in character, intensity and scale to those which existed before the rule became operative or the proposed plan was notified. This does not apply when a use of land that contravenes a rule has been discontinued for a continuous period of more than 12 months after the rule became operative.

Following the survey of the position of the proposed house, it has become evident that to construct portions of the house would involve trimming of pohutukawas that goes beyond the limits of the resource consent that you already hold. I remind you that your application in 1993 was to remove one limb of a protected pohutukawa (in effect a trunk) and this consent was granted by the Council subject to conditions.

As long as this consent remains valid (as extended to 10 March 1997) it can be relied on. The reservation that I have with this consent is that the surveyed position of the house is closer than that indicated on the site plan. Also, this consent does not permit works on the other major limb “trunk” of the same pohutukawa, or its branches, or the branches of the other pohutukawa closer to the western boundary. If the house is to be built to the design as approved in the building consent, that has today been ready for release, a further resource consent will be necessary for the additional pruning works. This will need to be lodged prior to the construction of the house.

In December 1996 a consultant planner engaged by the council requested an independent arborist to audit the applicant’s arborist’s report, which in turn would be considered by the council in determining the application to prune the trees. The independent arborist visited the site and noted that it had been recently marked out to clearly indicate the boundaries and heights of the proposed house. However, following inspection, the independent arborist stated that there appeared to be significant inconsistencies between the works that have been requested by the resource consent application and those that appear necessary in order to carry out construction of the proposed house:

- Tree 1: work had been requested to prune back the southern stem to 2 m from the base although the majority of the limb could be retained with only removal of secondary branches; and
- Tree 2: work had been requested to prune back the southern stem to the point 3.4 m above ground level. Although these works would require the removal of a significant portion of this tree, a substantial amount would remain. However, following the site inspection and discussions, almost the entire tree would require removing for construction purposes.

The independent arborist believed that due to these apparent inconsistencies it was prudent for the applicant to reassess those works required for the development. The council did not take any further action regarding this recommendation.

On 3 February 1997 the council granted a building consent for the ground floor concrete slab and foundations for the dwelling. Amended building plans for the driveway construction and retaining walls were

approved. However, these consents would have resulted in significant effects on the trees' roots within the area of the building footprint and the landowner did not have resource consent for these works. The council has stated that the applicant was entitled to seek building consent for the foundations without a resource consent for other work and that consent for foundations gave no indication that trimming would be consented.

Site modifications and enforcement action

In late January 1997 the landowner wrote to the council's planning consultant stating that the dwelling did not need to be redesigned and that the works should be allowed to continue. After further discussions, the landowner of 22A brought a mechanical digger on to the property on 18 February 1997 for various earthworks. On 19 February 1997 a major leader of one of the pohutukawa trees was cut down. The heavy machinery also affected the roots of three of the trees. A local resident then applied to the Environment Court for an interim enforcement order to prevent further damage to the trees at 22A Minnehaha Avenue on 19 February 1997. On 20 February 1997 work continued, but was halted following police and council intervention.

Judge Bollard approved the enforcement order on 24 February 1997 (*Kirkwood v Castle* (1997) 2 NZED 206) and subsequently ordered remedial work to be performed on the site. A work programme for the site was then agreed. With the lapsing of consent for the site, the owner would now have to apply for a new consent for any work and any new design would have to meet the requirements of the Environment Court.

In April 1997 in responding to a letter from a concerned resident, the Mayor commented that the hearings pertaining to the enforcement order sought by the adjacent landowners "have ensured that the owner respects the rules of the district plan".

Subsequently, in May 1997, after taking legal and planning advice, the Takapuna Community Board resolved not to proceed with a prosecution against the landowner for the works performed at 22A Minnehaha Avenue. In explaining the decision to the residents of Minnehaha Avenue, the council stated that it was not able to give the full reasons for the decision but it could make some general comments.

- The removal of demolition spoil has taken place without further damage to the trees. The tree roots have been treated and soil improved in the manner specified by the Court.
- The committee reviewed the arborist's reports and on balance did not believe that the impact experienced by the trees from either the limb removal or root severance has significantly impacted on their health or longevity.
- A legal undertaking was given by the landowner that no further works would occur on the site. The consents have now lapsed and with the landowner accepting that further consents were necessary for the site, there was no current threat to the trees.

- The council is of the opinion that the perceived difficulties with the previous resource consents from 1993 will not be repeated and professional arborist advice will be sought with any future proposal for the land.

Local residents then commissioned a planning report on the three development sites on Minnehaha Avenue and this was presented to the council. The council considered the report and replied:

the application for an extension [of the resource consent] was reported to the committee in regards to the criteria of Section 125 [RMA] even though a report appears to not be on Council's property file. The reasons covered within the notice of the extension cover the criteria.

The letter went on to state that council officers were long aware of the difficulties that the landowner was having in relation to the Department of Conservation seeking to obtain a portion of the site as esplanade reserve. Because of this, the effort in giving effect to the resource consent had not involved any physical construction. The council continued:

In summary here, I do not agree that these issues were overlooked or ignored in the consideration of the extension. They were just deemed to not be relevant to the consideration of the extension. The [residents' planning report] at 3.11 raises a legal question [the certificate of compliance was flawed] which cannot be addressed in this response. However, irrespective of the validity of the certificate it covered house plans that were identical to those for which a resource consent was held. I confirm that the Certificate of Compliance is of no value to the applicant as it has now expired. Mr Putt [the author of the planning report] also raised some interesting points on existing rights at his 3.16 and 3.17. However, again these have become academic as the consents to which he refers have lapsed.

In July 1997 an application for specialist arboricultural exploratory investigation, repositioning and protection work on roots of the pohutukawa trees on the site was made to the council. No consent was sought at this stage for the building which was depicted in the application. A detailed assessment of environmental effects (AEE) (eleven pages) was submitted with the proposal.

The application was notified by the council on 26 September 1997 and there were eight submissions against the proposal. In November 1997, just prior to the hearing, the Department of Conservation made a late submission on the application and stated:

As the applicant's site is within the coastal environment Council should ensure that the incremental impacts of a number of separate but related decisions in respect of this site do not adversely affect the long term future of the pohutukawa trees and therefore the value of any future esplanade reserve, should the Council in its discretion decide to take one.

Therefore in considering the application Council should ensure that any work proposed which could potentially detrimentally impact on the health and longevity of any trees which would be included in a future esplanade reserve is avoided.

Summary of issues from the case study

Issues of relevance from the case study include:

- the poor quality of AEE submitted as part of the resource consent applications;
- the lack of assessment of the cumulative effects of the individual development proposals on the overall environmental health and amenity values of the grove of pohutukawa;
- the brief council evaluation of assessment of environmental effects and the lack of a detailed report evaluating any application;
- the council not requiring applicants to consult with affected persons or obtain the approval of affected persons for developments affecting significant urban vegetation and the stability of adjacent property;
- the applications for resource consent and building consent were independently considered by the council (as is allowed by legislation) but the council did not check if the consents would conflict with each other;
- the council was not prepared to conduct its own review of information provided to it as part of a resource consent application because it did not consider it necessary;
- the council was not prepared to enforce the conditions of the resource consent for number 22A or enforce the provisions of the district plan after the consent had been breached. The council left enforcement action to individuals when there was widespread community concern; and
- the piecemeal nature of the resource consents applied for by the developer.

On 21 August 1997 the council informed concerned residents that a comprehensive review of the council's position on various matters pertaining to the effects of developments at numbers 20, 20A, 22 and 22A had been arranged.

3.3 Residential development, 24 Minnehaha Avenue, Takapuna

Resource consent applications

In March 1996 an application was submitted to the council to construct a new three story house on this coastal site with an existing house. The application noted that some of the top branches of a protected pohutukawa tree would need to be trimmed so that they cleared the house. The application also noted that “it is a very steep and difficult site to build a house on”.

In April 1996 a further application was made to build an inground swimming pool within the foreshore yard and coastal conservation area, with consent required for associated excavation, deposition of spoil and foreshore structures. The council evaluation of the application for the non-complying activity noted that there was no consent from affected parties and that effects on the environment were more than minor. It was recommended that the application be notified because of the substantial infringement and encroachment into the yard and the swimming pool would prevent further coastal planting of the property. The site directly adjoined a public beach and coastal walkway; the development would leave few areas of the site undeveloped and lead to a built visual dominance of the site.

On 2 May 1996 a council planner wrote to the applicant noting that he had reported to the Takapuna Community Board Planning Committee with a recommendation to notify the application. Reservations about the application included the substantial nature of the infringement and the presence of public beaches and coastal walkway. The naturalness of the site was severely compromised. A far more detailed assessment of environmental effects was required by the council with consideration of the rules and policies of the district plan.

On 7 May 1996 the council wrote to the applicant to advise that the application was considered by the Takapuna Community Board Planning Committee and the committee wished to confirm that the application would need to be notified due to the adverse effects on the environment. The council then asked the applicant if he wanted to proceed with the application. This was not initially responded to and the application to build the swimming pool was not progressed any further. In January 1997 the original application to construct a dwelling was withdrawn.

New application

In mid-January 1997 a new application was received for the construction of a new dwelling on the site and the removal of an existing house. Site plans and a brief assessment of environmental effects were submitted with the application. The AEE stated “there are no adverse effects on the environment” and also recorded that “we advise nobody is interested in or affected by the proposal”. The three page AEE followed the format of the fourth schedule of the RMA (assessment of effects on the environment) but apart from repeating the contents of the schedule there was little assessment of the actual or potential effects in the AEE. The AEE noted an attached arborist’s report on the application.

The arborist's report submitted with the application addressed the effects of works near the significant pohutukawa tree on the site. The tree was around 10 metres in height with five trunks of varying diameters. It was around 70 years old with shallow rooting because of subsurface basalt and the top of the tree had been removed in the past. The canopy spread was described as 12 m north/south and 10 m east/west. There was some disagreement about whether the dimensions corresponded to the indicative outline of the tree in relation to the house shown on the arborist's site plan. The outline was then surveyed and found to be a good calculation.

The proposed house would lie at its closest point some 3.5 m from one of the stems. It was proposed that one secondary branch and some minor foliage would need to be removed. The report documented that the proposed work to the tree was not excessive and, although some root severance would occur, this would not affect the tree. The house would use suspended floor construction and careful positioning of piles so that no significant roots need be severed.

In late January 1997 the council wrote to the applicant requesting more information on how the design and appearance of the building met the assessment criteria in the district plan. The applicant was also asked to confirm that the driveway would not affect several pohutukawas on the road reserve and provide estimates of the volume of soil to be excavated. This information was then supplied to the council.

Resource consent approval

On 21 February 1997 the Takapuna Community Board Planning Subcommittee resolved to grant a non-notified land use consent (discretionary activity) for the construction of a dwelling within the coastal conservation yard, siteworks exceeding 30 m³, on land with a gradient exceeding 1:5, within an area of geological significance and which involved work within the dripline of protected pohutukawa trees and the trimming of a pohutukawa tree.

The reasons for the decision were:

1. there will be no adverse effect on any person beyond the site as the building complies with the physical development controls pertaining to the protection of the amenity of the neighbouring sites and the immediate neighbourhood;
2. any adverse effects on the surrounding environment will be no more than minor. The design and external appearance of the dwelling will be complementary to the coastal setting in which the site lies... There will be no effect to the geological feature of the site being the basalt lava flows;

3. the proposal was not considered to be contrary to the objectives and policies of the operative or proposed district plan; and
4. the trimming of the pohutukawa tree necessary to site the house is minor and will not affect the visual impression of the tree to the public. The design of the foundations will not adversely affect the root system of the tree.

Consent conditions included that:

- the development proceed in accordance with the plans submitted and the arborist's report;
- the applicant, prior to the release of a building consent, shall submit a landscape plan to the satisfaction of the resource consent specialist (conservation);
- a performance agreement of \$10,000 would be required;
- the applicant shall follow all of the recommendations and method statements contained within the arborist's reports covering the protection of the pohutukawa tree on the site and those within the road berm. The protection fences shall be erected prior to the construction and be of a solid material as specified in the arborist's guidelines.

The subcommittee did not require any written approval from affected persons to be submitted with the application.

With the subsequent application for building consent, there was a slight change to the position of the house and it was angled approximately 1 metre further away from the pohutukawa tree. This would reduce the extent of the trimming of the trees.

This new non-notified resource consent affecting the grove of pohutukawa was of major concern to local residents who considered themselves to be affected persons. They were concerned about the other developments at numbers 20A and 22A and believed that the council had ignored their concerns.

Ombudsman involvement

In July 1997 the office of the Ombudsman was requested to investigate the granting of the resource consent. After making initial inquiries, the office of the Ombudsman discontinued its investigation in August 1997, because the Parliamentary Commissioner for the Environment was investigating the issues. However, the Ombudsman did provide a copy of the council's response to the complaint.

Part of the complaint to the Ombudsman was that the council should either employ its own arborist or have a peer review of any arborist's reports submitted with resource consent applications to verify the accuracy and quality of information submitted. In August 1997 the council replied that:

it considers that such an approach would be bureaucratic, time consuming and expensive for applicants and lead to little improvement in the quality of decisions made. The Council's approach relies on the professionalism of the arborist's reports and the physical data in this application has been verified on site by its reporting planner. The planner's handwritten report is brief and forms the basis of a more detailed verbal presentation and synopsis of the application submitted to the Planning Subcommittee.

Summary of issues from the case study

Issues of relevance from the case study include:

- the poor quality of the initial assessment of environmental effects submitted as part of the new resource consent application even when the applicant had been advised as to concerns with the original application. The applicant subsequently provided an arborist's report to the council;
- the lack of assessment of the cumulative effects of the individual development proposal on the overall environmental health and amenity values of the grove of pohutukawas;
- the brief council evaluation of assessment of environmental effects and the lack of a detailed report evaluating any application;
- the nature of information required by the council to make a decision and when a detailed review of an application is necessary;
- the council not requiring applicants to consult with affected persons or obtain the approval of affected persons for developments affecting significant urban vegetation; and
- the council was not prepared to conduct its own review of information provided to it as part of a resource consent application.

4 CASE STUDIES - SELECTED SITES

This chapter examines the effects of residential development on urban vegetation at several sites to illustrate issues associated with the management of urban vegetation in North Shore City.

This 1790 m² north-east facing coastal cliff top site in Takapuna featured some shrubs and trees along the crest of the cliff top. Several pohutukawa trees were located on the cliff top adjoining the section to the north. The cliff face had slopes of up to 60⁰.

4.1 Residential development, 17 Clifton Road, Takapuna

Proposed development

In October 1995 the landowner submitted an application for a land use consent (controlled activity) to construct a dwelling on the site that would replace an existing dwelling. The application described how resource consent was required under the proposed district plan as the proposed development was in the coastal conservation area and the deck and house infringed the 9 m foreshore yard. The proposal also exceeded the height in relation to boundary control on the cliff boundary. The application noted that the proposed dwelling complied with the 35% site coverage rule (proposed coverage of 535 m² or 35% of the site) and had 746 m² of permeable area.

Assessment of environmental effects

A very brief (four paragraphs) assessment of environmental effects (AEE) noted that the proposed dwelling is set back against the rear yard as far as possible from the cliff front. The applicants believed that “the house is sufficiently set back from the front boundary to have no adverse effects on the cliff appearance, both from below and out to sea”.

The AEE stated the materials and colour of the house would give it a subdued appearance and it would not compromise the surrounding natural environment in any way. No native vegetation was to be removed and the dwelling would generally occupy the land where the existing house was located. The site was almost flat and there would be minimal earthworks (< 5 m³ of earth). The applicants believed that the house would have no adverse effect on the environment but would complement the cliff top site.

Evaluation of application

On 27 October 1995 the proposal was briefly evaluated (half page) by the council as a resource consent application for a discretionary

activity. Consent was required for the development within the coastal conservation area; it exceeded the height in relation to boundary on the cliff front, removal of some vegetation from the bank, and deposition and construction of a terrace within 5 m of the cliff-line.

The very brief evaluation of the application by the council noted “reservations: closeness to cliff edge” and “previous slip recently in immediate vicinity”. The proposal was a “good house design however maximises coverage - will be prominent from beach below”. “Site coverage is maximised and relies on the significant amount of space on the cliff face”. The “deck protrudes beyond edge of cliff-line” with “impacts on the cliff vegetation”. There was no formal written assessment other than half a page of hand-written notes by a resource consent planner.

Community board decision

The resource consent planner reported on the application to the Takapuna Community Board Planning Subcommittee on 15 February 1996. The two community board members on the subcommittee considered the application and resolved that the application not be notified and be granted for reasons that:

- there will be no adverse effect on any person beyond the site as the proposed building is substantially removed from the public beach by the height of the cliff. The dwelling comfortably complies with yard setbacks and height to boundary controls to adjoining properties;
- any adverse effects on the surrounding environment will be no more than minor as the design and appearance of the dwelling is sympathetic to the coastal environment;
- the dwelling does not impose on any site vegetation, particularly that along the top of the cliff line. While the building work itself is unlikely to accelerate erosion or subsidence of the cliff line it is appropriate that the concerns of the council are highlighted within a covenant entered on the title. It is not logical to enforce the height to boundary control from the beach due to the significant height difference provided by the cliff face. The building will neither dominant (sic) the beach or provide any additional shadowing greater than that already provided by the cliff face;
- the deck imposes on the vegetation at the top of the cliff-line and the building imposes beyond the natural line of the cliff face. No information has been provided to satisfy the committee of the structural certainty of the cliff face nor the potential adverse impact from the removal of vegetation in this area and additional weight from the deck structure. *[This reason*

was later removed as it was "now satisfied" but there is no record of when or why this deletion occurred and it is not signed off. The council has confirmed that it was discussed with the Planning Committee and involved a redrafting only.]

Resource consent conditions

Conditions as part of resource consent included:

- the deck beyond the north-east line of the family room pergola shall not be permitted. The front of the deck should be screened by plantings so that it cannot be seen from the beach below;
- all native trees (including the roots) of 8 metres or more in height or with a girth (measured 1.4 metres above ground level) greater than 600 mm are protected (ie you can not prune or fell the above trees without the consent of the council [standard condition];
- all native vegetation is protected (ie you cannot prune or fell any native vegetation without the consent of the council) [standard condition];
- during the construction phase a 1.8 m high protective barrier (ie solid plywood fence) shall be erected along the top edge of the cliff line 1.5 metres from the front line of the family room;
- the committee notes that pursuant to s 36(2) of the Building Act the territorial authority shall not be liable for damage to the proposed dwelling caused by erosion or subsidence. An encumbrance will be lodged against the title noting that the land on which the proposed building works are to take place is subject to erosion, subsidence or slippage. Details shall be finalised at the issue of building consent.

On 11 March 1996 the applicant's architect wrote to the council as he was concerned about the condition that restricted the depth of the terrace to that of the pergola above - only 2.5 m out from the house. The existing terrace that was there at present was at the same level as the proposed but it came out 4 m from the house. The applicant claimed existing use rights and requested that the condition be altered once the council had considered this.

On 12 March 1996 the approved application was sent to the applicant with the above reasons and conditions except the condition pertaining to the terrace was altered to read:

- the terrace beyond the north-east line of the family room pergola shall not extend beyond the line of the existing retaining wall. The terrace shall be screened by plantings so that it cannot be seen from the beach below.

This alteration was discussed with the Planning Committee.

Monitoring of the development

After the development was proceeding, concerns were expressed to the council about works under the canopy of four protected pohutukawa trees without resource consent, building in the 3 m rear yard, over height fences on an adjoining boundary, and substantial excavation and moving of earth on the cliff top. There were also concerns that the development did not meet the intent of the district plan that coastal developments fit in with the natural environment and that they do not visually dominate.

In July 1997 a resident of Clifton Road wrote to members of the Takapuna Community Board commenting on the works proceeding without resource consent:

What irks us the most, and has led me to write this letter is that it seems nigh impossible to spark the council into taking any action. What is an ordinary person to do? The architect and owner just carry on, and the construction will soon be completed.

Briefly when the earthworks were first begun, over a year ago [in 1996] I spent 48 hours on the phone to the council to find out what was happening and why there was digging under our trees. I ended up being fobbed off by every department in the council.

About 6 months later I became convinced that the district plan had been breached. I employed a town planner, a surveyor and an arborist and eventually persuaded the compliance team that there was a significant problem. On the 17 of March [1997] the council wrote to the owners requesting compliance within 14 days, after which enforcement proceedings would begin. After interminable delays there was an attempt at a negotiated resolution sometime in May. At this stage it was clearly apparent that the architect and owner thought that they had all necessary consents.

We are now into July [1997] and I have been informed that an abatement notice will be forwarded at some time. This of course could be appealed, and an appeal may not be heard for months.

Throughout this whole process all the initiative has come from us. Despite clear breaches of the District Plan and likely damage to protected pohutukawa trees the enforcement process has dragged on and on. The council staff have been polite and interested but prompt action has not been forthcoming.

Summary of issues from the case study

Issues of relevance from this case study include:

- a very brief AEE was submitted with the application;
- the site plan that was submitted did not identify the location or the significance of any vegetation on the site;
- there was no documentation of a site visit by the council planner;
- there was no written approval from affected persons eg adjacent neighbours;
- there was only a very brief evaluation of the AEE by the council;
- changes were made to the consent conditions without documented reasons;
- there was little consideration of the design of the building and potential dominance effect on the beach below and yet the planner's report noted that the dwelling "will be prominent from beach below";
- there was a considerable period of time before enforcement action by the council.

Proposed development

In March 1996 an application was made for works within the coastal conservation area, 30 m foreshore yard, and within the dripline of protected pohutukawa trees, in order to create a grass lawn behind the existing seawall. The ground would be raised behind a retaining wall and around 15 m³ of earth would be removed along with 4 m³ of fill. The application stated that "this will not alter the beach-front appearance from the certificate of compliance scheme and will greatly enhance the amenity of area from our client's point of view". The site plan submitted with the application showed the location of scheduled pohutukawa trees although there was no AEE. A certificate of compliance for a new dwelling had earlier been given in August 1994.

Council assessment

In early April 1996 further information was requested by the council to assess the effects of the use of an old boatshed as a terrace within the foreshore yard. The site was visited in April 1996 by planning staff and the Takapuna Community Board Planning Subcommittee. The visit revealed that the boatshed did not have existing use rights as it had not been used for some time. The visit also revealed that a pohutukawa tree shown to the north of the boatshed was actually in front of the boatshed and that construction and use of the shed would mean damage or removal of the tree. More accurate plans were then requested by the council.

On 18 April 1996 a council planner prepared a notification determination on the application. It was reported that there was no consent of affected persons and the effects on the environment were more than minor. It was subsequently recommended that the

4.2 Residential development, 26 Park Avenue, Takapuna

application be notified as the proposal was a non-complying activity and the public amenity of Takapuna Beach would be significantly affected as:

- residential activity and accessory building will be located on the boundary of a proposed esplanade reserve;
- construction of a 2.5 metre wall on boundary of proposed esplanade reserve; and
- development will result in removal/damage to a protected pohutukawa tree.

Community board decision

Revised plans with additional information were submitted by the applicant on 15 July 1996. The application was then considered by the Takapuna Community Board Planning Subcommittee on 26 July 1996 where it was resolved that the application not be notified and be granted for the reasons including that:

1. written consent has been obtained from every person who may be adversely affected by the proposal, being the neighbours at 29 Sanders Avenue in relation to the triple garage within the northern rear yard;
2. there will be no adverse effect on any person beyond the site as the proposal is substantially in line with the provision of the plans that sets appropriate limits within which it is considered that adverse effects to neighbours or the public generally should not result;
3. any adverse effects on the surrounding environment will be no more than minor as the design has incorporated specific design elements such as the finish of the sea wall, foreshore yard plantings and seeks to retain the existing ground levels around the large pohutukawa trees. The significant visual qualities of these trees will remain unchanged while the vegetation cover within the foreshore yard will be improved;
4. the consent facilitates the development of the proposed residence which is permitted by means of the certificate of compliance issued pursuant to the rules of the transitional district plan in 1994.

Standard conditions were attached to the consent to protect all native trees of 8 metres or more in height and during the full construction phase; a 1.8 m high protective barrier had to be erected outside the edge of the dripline (branch spread) between the construction site and protected pohutukawa trees. Another condition required a report from a qualified arborist appointed by the resource consent applicant to be submitted to address the formation of the pedestrian accessway to the beach. There were to be no effects to the root system of any pohutukawa tree. Any conditions deemed necessary by the arborist were to be incorporated into the design or undertaken as appropriate.

Monitoring of construction

In April 1997 the council received a copy of an arborist's report on the construction of two accessways beneath three pohutukawa trees. The report noted that one of the pohutukawa trees showed signs of stress, probably due to past erosion damage to the tree's root system. However, the arborist recommended that if certain conditions were adhered to, then the construction of the two accessways would have little or no long-term effect on the health of the three pohutukawa.

In June 1997 concerns were expressed about the development and works performed within the dripline of protected pohutukawa. A council compliance officer reported to a local resident that an arborist employed by the council and the site arborist had inspected the site. Heavy rainfall had exacerbated the effect of the excavation work on the root systems of the trees. Advice was forwarded to the site manager requesting that works be undertaken to mitigate the effects of the earthworks and water flow on the tree roots. However, neither arborist envisaged that any long-term damage would occur to any of the trees on the site as long as works were undertaken to remedy the situation. The compliance team would continue to monitor the site through the construction period.

Subsequently in July 1997 the same council compliance officer reported that the site arborist had stated that it was not possible to cover the roots after they were pruned due to the gradient of the cuts on the site. Once further construction work was completed the exposed roots would be covered as requested. It was not envisaged that this delay would affect the health of any of the pohutukawa on the site.

Summary of issues from the case study

Issues of relevance from this case study include:

- the value of a site visit to check the accuracy of the site plans and the vegetation on the site;
- a recommendation to notify the application because of the adverse effects of the proposed activity in the foreshore yard not subsequently implemented by the subcommittee [note: the subcommittee had this discretion];
- inadequate resource consent conditions:
 - the council did not require the arborist's report (appointed by the applicant) to be submitted to the council for review;
 - the council could not require the consent holder to comply with conditions set down by an arborist as they were not specified in the actual consent. Conditions cannot be imposed on a resource consent except through the consent process [note: neither the consent authority nor its delegate may impose conditions at a later stage notwithstanding the terms of the consent. However, the board could have imposed a condition to undertake the work near

the tree in a manner satisfactory to an arborist appointed by the council];

- damage to the pohutukawa tree root system even though the resource consent had not permitted any damage to the root system.

4.3 Multiple townhouse development, 4-8 Zion Road, Birkenhead

This undeveloped 1750 m² site in Birkenhead contained a variety of vegetation including a puriri tree, a cabbage tree, two nikau palms, several willow trees, manuka trees and flame trees. The lower slopes were covered with grass and ginger. The site was bisected by a small watercourse that meandered down the middle of the site. Local stormwater was piped into the watercourse.

On 18 March 1996 a detailed application for land use consent (non-complying activity) for three dwellings was received by the council. A detailed AEE (eight pages) was included with the application and supporting information included:

- a site plan showed the location of some of the trees and trees already removed from the site;
- written approval supporting the development from one adjacent landowner [*it is worth noting that there are at least three other adjacent landowners who were not consulted and who subsequently raised concerns about the development*];
- a geotechnical report that concluded that the site was satisfactory from a stability viewpoint. It also noted that the landowners proposed to retain the maximum possible number of existing trees and that would greatly assist in the stability of the site.

The proposal needed resource consent as the site required a minimum area of 600 m² under the Residential 2B zone provisions in the proposed district plan and the area was 50 m² short of the required density provisions (the transitional Birkenhead district plan Residential A zone provisions would have permitted four dwellings as of right on the site). The proposal more than adequately complied with district plan site coverage and landscaping requirements. The proposal also involved the removal of native vegetation which was protected in the Residential 2B zone of the proposed district plan.

The AEE outlined the proposal and the effects of the development. Comments relevant to the management of urban vegetation include:

The site is heavily vegetated at present with the major indigenous trees proposed to be retained. The rest of the property is generally overgrown. The trees to be retained include a large puriri, a cabbage tree and nikau palm in the north-west corner. The willow trees on the site will be removed (p 1).

The development assists in the overall landscape by retaining important trees and adding substantially through an intensive landscape planning scheme (p 2).

The vegetation intended to be retained by the application is therefore important within the site but is not particularly visible as part of the streetscape amenity. This is simply because the streetscape vegetation is so dominant and the topography of the site lessens the impact of the on-site planting because the site is falling away from the road (p 4).

The important native trees on the site are to be retained and only extraneous overgrown vegetation and trees unsuited to the urban setting such as self sown willows will be removed. The landscape proposals focus on native tree replacement supplemented with appropriate exotic other sub-tropical species (p 6).

The physical impact of the application involves the clearing of the site but the retention of important native trees (p 6).

The proposal only involves the clearing of building sites and the driveway to allow the development to proceed. Earthworks are minor and are an integral part of the development not requiring any particular consideration (p 7).

Notification determination

On 28 March 1996 the application was briefly evaluated (half page) to determine if notification was required under s 94 RMA. The evaluation recorded that consent of affected parties was not required and the effects on the environment were not more than minor. It was recommended that the application not be notified for the reasons that the:

site is visually contained and as the level of development proposed is only just over the threshold of a controlled activity there is no measurable effect of the non-compliance beyond the site. The extent of native tree removal is insignificant compared to the extent of tree cover remaining and its removal will not affect the character of the site.

This recommendation was adopted by the Community Board Planning Subcommittee.

Community board decision

On 29 March 1996 a consultant on behalf of the council reported on the application to the Birkenhead/Northcote Community Board Planning Subcommittee which had earlier inspected the site. The subcommittee considered the application and resolved that the application not be notified and be granted for reasons that:

1. there will be no adverse effect on any person beyond the site as the dwelling on neighbouring sites is not able to view the proposed building platforms and will be largely unaware of the intensity of the proposed development;
2. any adverse effects on the surrounding environment will be no more than minor as:
 - a) the loss of native trees will not be seen beyond the site and will not affect ground stability;
 - b) the site is visually contained due to the topography and size of vegetation and any development of complying bulk and location will be largely unseen from adjacent properties;
3. the proposal is not considered to be contrary to the objectives and policies of the proposed district plan because the amount of density non-compliance is minor and the extent of physical development will not affect the bush character of the site.

Conditions included:

6. that those areas of excavation not covered by buildings, parking or accessways be re-vegetated within one month of the completion of siteworks;
11. other than the trees to be felled for buildings and access, all native trees (including the roots) of 8 metres or more in height or with a girth (measured 1.4 metres above ground level) greater than 600 mm are protected (ie you can not prune or fell the above trees without the consent of the council) [standard condition];
12. at no point shall materials be stored within the bushline nor shall any waste materials be disposed of in the existing bush area;
13. during the construction phase a 1.8 m high protective barrier (ie chicken wire, orange plastic screen etc) shall be erected between the construction site and protected vegetation, before the start of earthworks, construction etc. This shall remain in place until all site and construction works have finished [standard condition];
14. In respect of conditions 12 and 13 a performance bond agreement shall be entered into by the applicants to the cash value of \$1000 when applying for a building permit.

In May 1996 while compiling working drawings and detailed geotechnical information to gain building consent the consent holders discovered that parts of the drive would be marginally steeper than the 1 in 5 gradient restriction specified as a condition of the resource consent. In June 1996 a subsequent resource consent application for a non-complying activity was made and then granted for the part of the drive that would have a grade greater than 1 in 5 between the kerb and the property frontage.

Outcome

Several local residents expressed concerns about widespread removal of vegetation from the site and siltation of the water course to the council in August 1996. In September 1996 the Chief Executive responded to concerned residents:

The extent of native vegetation removal was intended to be restricted to that which was located within the extent of the driveway and building platforms while maintaining mature trees around the site boundaries to maintain the privacy and amenity of surrounding properties. The subcommittee considered that this degree of vegetation removal would not significantly affect the amenity of neighbouring properties or the locality.

Unfortunately, the conditions imposed on the consent by the subcommittee did not cover the possibility of the developer clearing all the undergrowth from the site, nor did they require the retention of exotic trees which assisted in the privacy of adjoining sites. The developer has taken full advantage of the resource consent as worded and significantly more vegetation has been removed than the subcommittee intended to allow in granting the consent (North Shore City Council letter, September 1996).

One of the consent conditions required the retention of a puriri tree on the site. On clearing the scrub from the site it became apparent that the tree was in poor condition. This was confirmed by an arborist's report that noted the tree was in an advanced stage of decline. On 6 December 1996 an application was made to remove the puriri.

On 13 December 1996 the Birkenhead/Northcote Community Board Planning Subcommittee considered an application to remove the puriri tree. The subcommittee resolved that the application not be notified and granted for reasons including that:

- A) there will be no adverse effect on any person beyond the site nor adverse effect on the surrounding environment from the removal of the tree(s) as:
- the removal will not affect the character of the site when viewed from neighbouring properties;
 - the tree is diseased/damaged/in an irreversibly declining state;
 - it has become necessary to avoid further damage to the property.

A condition of the consent was that the holder plant one native tree species (excluding pittosporum) of a minimum height of 1.5 metres

within the delineated area of unit 1, within 6 months of the date of this consent.

Summary of issues from the case study

Issues of relevance from this case study include:

- a detailed AEE was submitted with the application;
- adjoining neighbours at the rear of the site were not considered as affected persons to be consulted about the development;
- no written record of evaluation by the council apart from a one page decision on the determination on notification;
- the replacement of mature tree cover with landscaping;
- inadequate resource consent conditions to protect remaining vegetation on the site and, in particular, the privacy of surrounding neighbours;
- the character of the site was substantially changed notwithstanding the view of the council as part of the notification determination that “the extent of native tree removal is insignificant compared to the extent of tree cover remaining and its removal will not affect the character of the site”;
- a very small bond (\$1000) for compliance with resource consent conditions.

As a result of problems experienced with this resource consent, a dedicated monitoring officer has been appointed by the council with the purpose of monitoring “flagged” applications through the entire process. The means of “flagging” potential problem applications is for the processing planner to alert the monitoring officer by attaching a red form to the application.

4.4 Multiple townhouse development, 76 Shakespeare Road, Milford

Proposed development

This 2689 m² moderately sloping site is on the shore of Lake Pupuke. Resource consent was required to build in the 30 m foreshore yard, to perform excavations in the Lake Pupuke geological area, and buildings and works within the dripline of protected trees (including mature oak and pohutukawa trees).

In December 1995 a resource consent application (discretionary activity) was submitted to the council for the development of four townhouses. The very brief impact assessment (quarter page) stated:

- the impact on the neighbouring properties and traffic in this instance is nil. The houses are located on a very large site very capable of accommodating them;
- the site is well screened on both sides for visual privacy to comply with town planning requirements;
- compliance with the height controls has been met as have all other planning requirements.

In summary, the applicant believed “the impact of the proposal to allow a second access to the property is slight as are the effects of the topography. The excavation is approximately 105 m³, not excessive, given the topography”. A detailed site plan was provided with the application showing the vegetation on the site. A replanting programme was proposed by the applicant.

Evaluation of the application

On 22 December 1995 a council land use consent worksheet noted the special provisions of the site including that the site was in the Lake Pupuke geological area, all trees were protected and the oak trees were individually scheduled. There was a need for an arborist’s report for the building of houses within the dripline of the oak trees and pohutukawa. Comments and special instructions for the application noted a “full assessment necessary, check property file for previous consents - proposed tennis court development already refused. Needs consideration of esplanade reserve if this is not to be 20 metres. May need improved assessment of effects - this site is sensitive!”. A council checklist to identify the information provided with the land use consent application recorded no AEE but no further information was sought.

Although the initial check of the application noted that a full assessment was necessary, only brief notes (half page) were prepared on the application. There was no record of a site visit by a council resource consent planner. There was also no record of an examination of the application by a qualified arborist.

Community board decision

On 17 January 1996 the Takapuna Community Board Planning Subcommittee granted an application for pruning of oak, pohutukawa and other native trees for vehicle access, deadwood and inner thinning for light and removal of privets and exotic undergrowth within the 30 m foreshore yard. Conditions of the consent included that no more than 10% of the existing canopy areas of the pohutukawa and other native trees should be thinned and the work was to be performed by a qualified arborist.

On 6 March 1996 the Takapuna Community Board Planning Subcommittee resolved that the application to construct four townhouses be granted without notification for the reasons that:

1. any adverse effects on the surrounding environment will be no more than minor as:
 - a) the townhouses can comply with the standard performance criteria for the residential zone. Each has satisfactory outdoor space, access and manoeuvring for vehicles, opportunities for visitor parking and are of a high architectural standard. The bulk of the buildings are offset by the substantial open space of the lakeside yard

while they remain screened by significant trees on this site and those of the neighbours. Compliance with building height to boundary will prevent any dominance;

b) the development permits the retention of the significant trees on-site, in a healthy and viable state, while providing sufficient space for their future growth. Substantial landscaping is envisaged for the lakeside yard and it is considered beneficial long-term to replace the present scrub on the lakeside bank that is now substantially infested with exotic weeds. However, the natural slope and landform of the bank should be maintained.

There should be no dominance or loss of privacy to the neighbouring properties.

Conditions of the consent included:

10) All native vegetation is protected (ie you can not prune or fell any native vegetation without the consent of council). Unless a separate application or conditions of this consent permit;

11) During the construction phase a 1.8 m high protective plywood fence shall be erected between the construction site and protected trees, before the start of earthworks, construction, etc. This shall remain in place until all site and construction works have finished [*This did not specify how far from the trees*];

12) The permitted pruning of the significant protected trees on-site shall occur prior to the commencement of the construction. This shall not exceed the degree permitted by the present consent;

18) There shall be no earthworks within 4 metres of the side of the trucks (sic) of the pohutukawa, karaka and rimu to the street side of unit 1. The lounge, dining and family room floor level of unit 1 and the adjoining front yard terrace shall be raised approximately 600 mm so to prevent the excavations identified on the application plans.

A \$5000 performance bond was also required as a condition of resource consent.

Outcome

In mid-March 1996 local residents contacted the council because they were concerned about the pruning of trees on the site authorised by the January resource consent. On 19 March 1996 the council considered whether the consent conditions for pruning of the trees had been contravened. However, council notes recorded that the work was considered to be a “non-issue” as a council planner had given verbal approval to trim foliage of one branch on a protected tree and then “the tree was cut back too far”. The council conservation officer indicated that as it was a lower branch, the council would generally have given approval depending on the reasons and the scale of work.

In May 1996 local residents again contacted the council about the development and compliance with district plan and resource consent conditions to protect the trees. In June 1996 the council responded that:

The previously purported breaches in terms of tree rules were thoroughly checked out by council staff. No action was taken as the work was minor and did not contravene the purpose of the tree ordinances, though it would appear that an application should have been made. Given the previous reasons, it was seen that requiring the developer to lodge an application would have achieved no purpose on a practical basis.

The matter was discussed however with the developer wherein he was reminded of the tree protection rules. I agree with you that the action by council could appear to indicate that the rules are not being enforced. In this situation though, I believe all practical steps were taken to ensure compliance. However enforcement staff have been asked to visit the site in the next few days to discuss the matter of council tree protection rules with the developer, to again ensure he understands.

Local residents became increasingly concerned about the possible impact of the site works on the health of significant trees on the site. In March 1997 concerns were expressed to the council that the fencing condition of the resource consent had been contravened. It was alleged that the fence which was put in place before the start of the earthworks and construction was later removed and re-sited to within 1 metre of the trunks of protected trees. This allowed the consent holder to undertake earthworks within 4 metres of the side of the trunks of pohutukawa, karaka and rimu trees. Once the unauthorised work was carried out the fence was relocated back to its original position.

Concerned residents commissioned a report from an arborist on the effects of the works on the trees. The arborist's report (March 1997) noted that a number of trees (ie a pohutukawa, a karaka, a rimu and an oak) have been adversely affected by the site works and building. Also growing on the site was a very large and exceptionally fine specimen of English oak that was scheduled in the district plan. The oak tree was 27 m tall, it had a stem girth of 4720 mm at 1.4 m above ground level and was in very good health. This landmark oak tree was one of the largest oak trees on the North Shore and it contributed to the scenic quality and visual amenity of the area.

One of the proposed units was to be built within the dripline of the oak tree that extended to around 16 metres. In the arborist's opinion "the adverse effects on the root system are predictable and can be

anticipated to be substantial if the proposed construction goes ahead. This root loss and damage to the root environment inevitably will have an adverse effect on the future health of the scheduled tree”...“In my opinion, the proposed works and building are in an unsuitable location with respect to the protected tree. I believe that the works, as proposed, are likely to cause serious adverse effects on the future health and potential longevity of the scheduled tree” (Clunie & Associates March 1997).

Another arborist’s report was later prepared for concerned residents on the effects of works on the other trees on the site. The arborist noted condition 18 (see above) but commented:

Earthworks, including substantial excavations to cut levels for foundations have been done very much closer to each of the trees than 4 metres (eg, to within less than 1 metre of the rimu trunk). These excavations have cut directly across a substantial sector of the root spread of each of these trees, The excavations have cut to a depth which will have severed many or all of the roots in the affected sectors of the root system.

The roots appear to have been torn off roughly using an excavating machine. ... These damaged tissues are prime sites for infection and mass ingress of pathogens.

...The immediate root loss is unlikely to kill the trees or cause substantial crown decline in the short term, over the next few years. However, ongoing indirect root loss through the infection of the wounds and spread of rot is likely to cause the attrition of the root system in the longer term, and ultimately threaten the future health of the trees and their potential longevity (Clunie & Associates April 1997).

In April 1997 the council responded to the criticism by stating:

the foundation works on site within the dripline of the protected trees were to be supervised by the developers’ arborists and all foundation piles hand dug by the arborists’ staff. We have been advised that some works within the vicinity of the rimu and pohutukawa trees had occurred without the developers’ arborists being present and that works could have proceeded in a manner that was less damaging to these trees. However in saying this, it was always the intention for the homes to be positioned partially beneath the tree canopies and the arborist was satisfied that this could occur without significant adverse effect to the trees. The vast majority of the root system of these trees remains unhindered by any works, protected by

fencing during the construction phase and will remain unaffected after development.

Summary of issues from the case study

Issues of relevance from this case study include:

- a very brief and incomplete assessment of environmental effects was submitted with the application;
- a very brief council evaluation even though it was noted that the site was sensitive. The council did not request further information from the applicant. The council relied on the information from the arborist employed by the applicant;
- inadequate consideration of the effects of the development on the vegetation on the site;
- inadequate resource consent conditions (ie the required distance to site the 1.8 m high protective plywood fence was not specified, inadequate bond given the size of the development and the significance of the trees);
- non-compliance of the developer with vegetation protection rules and conditions of resource consents. Although the individual actions may have had minor effects, the actions demonstrate scant regard for the council's requirements and attempts to provide for tree protection;
- inadequate council supervision of work among protected trees;
- inadequate council response to residents who were monitoring the manner in which the developer was working on the site;
- inadequate appreciation by developers of importance of the vegetation on the site;
- conflicting evidence from arborists on the effects of construction on the significant trees [note: this information was not available to the council during the processing of the application and early monitoring.]

Seacliffe Avenue runs along the top of the Takapuna cliffs. The stability of the cliffs is a major concern to local residents as there were a number of slips and collapses along the Clifton-Seacliffe-Hamana Street cliffs between Takapuna Beach and Narrowneck Beach during the wet winter of 1996. The cliffs also have significant areas of coastal vegetation including coastal pohutukawa. The vegetation serves a dual purpose of providing important amenity/landscape values and assisting slope stability.

At 16 Seacliffe Avenue the property slopes towards a cliff face, and the coastal edge of the site contains a large area of mature native vegetation. Part of the coastal edge of the site and the adjoining northern property were the subject of a major landslide some 25 years ago.

Proposed development

4.5 Residential development, 16 Seacliffe Avenue, Takapuna

In early 1994 the landowners of 16 Seacliffe Avenue advised neighbours of their intention to either refurbish their existing house or demolish it and build a new house on the site. However, in March 1995 the landowners lodged a resource consent application with the council for the subdivision of 16 Seacliffe Avenue into two sites and a waiver of the 20 metre esplanade reserve. A geotechnical report was submitted with the application. There was no vegetation assessment or evidence of consultation with affected persons and written approval for the proposed development.

The site was zoned Residential 2B in the proposed district plan, which applies to areas that have larger sites with significant numbers of mature trees or in a coastal location, and it includes extensive areas adjacent to the coast. The zone has a high standard of natural amenity, with a significant number of mature trees and areas of open space. The site was also within the coastal conservation area where the protection of native vegetation for amenity values and land stability was of importance.

Evaluation of the application

In March 1995 a council planner evaluated the application. Comments included that it was a “non-complying subdivision due to daylight infringements in the new accessway boundary. I recommend however that consent be granted for these infringements... the infringements have no effect on the amenities of Lot 2 [on the site] or on those of other surrounding properties. Subdivision complies in all other respects (except esplanade reserve).” However, the site was not visited by a council planner as part of the evaluation to check the site plan that was submitted. The evaluation did not assess the proposal against the objectives and policies of the zone, it did not consider any effects on adjacent properties or the effects on the coastal vegetation, and the evaluation did not take into account the history of slope instability and the lack of a comprehensive geotechnical report.

Community board decision

In April 1995 a council planner reported to the Devonport Community Board Planning Subcommittee on the application for the waiver of the esplanade reserve and in early May the committee decided to request the Minister of Conservation’s consent to waive the reserve requirement. This consent was later received.

On 29 June 1995 the Devonport Community Board Planning Subcommittee resolved not to notify the application and grant the consent subject to conditions.

Neighbourhood concerns

Adjacent residents expressed their concerns to the council about the granting of the consent. Subsequently, in December 1995 an application for judicial review of the granting of the subdivision consent was filed with the High Court by an adjacent landowner.

The judicial review proceedings centred around three causes of action, namely: illegality and a failure to take into account relevant considerations, unfairness and unreasonableness. Evidence presented at the review showed that, although the subdivision consent was granted by the subcommittee, this was without reference to a comprehensive geotechnical report or the identification of a building platform as required under the proposed plan. The council had not taken into account matters including:

- the geotechnical suitability of the site for the proposed subdivision having regard to the history of instability;
- the necessity to remove or cut mature coastal vegetation;
- the compatibility of the proposed subdivision with the objectives and policies of the proposed district plan for the coastal conservation area;
- the lack of written approval of adjacent neighbours who were very concerned about the proposed development and potential effects on the stability and amenity values of their property [the council considered that the subdivision itself did not have an adverse effect on neighbours].

The High Court found that there were procedural deficiencies within the council's powers of delegation at the time the application was considered. On 4 March 1997 the High Court (*Woodroffe v North Shore City Council* M No 1701/95, Elias J, 4 March 1997) ordered, by consent, that:

- the council's decision not to notify the application for a subdivision consent be declared to be unlawful and invalid;
- the council's granting of the subdivision consent was declared to be unlawful and invalid;
- the granting of the subdivision consent be quashed and set aside.

This required the applicants to submit a new application.

In early March 1997 the resident who took the High Court action advised the council "I regret very much that we all had to go to the expense we have. Having said that, I would like to reiterate that all I am looking for is an even playing field with council protection equal to other ratepayers." The cost of the High Court action to the resident was more than \$100,000.

On 19 March 1997 the Department of Conservation advised the council that as the subdivision consent had been quashed and set

aside, the consent of the Minister for the waiver of the esplanade reserve would now also be set aside.

Application for new resource consent

Following the decision of the High Court, in late March 1997 the landowner of 16 Seacliffe Avenue applied for a new resource consent (non-complying activity) to:

- subdivide the site to create a new rear site without an esplanade reserve;
- construct new retaining walls to urgently replace existing retaining walls, with associated earthworks and vegetation clearance;
- modify the side yard and building height rules relative to the existing house on the new (internal) boundary.

The council decided that, given the involvement of council staff with the original application and the concerns of an adjacent resident, it would engage an independent planning consultant to report on the new application. Subsequently, following a request from the applicant, the council also appointed an independent commissioner to consider and make a decision on the land use and subdivision consent applications for the property to remove any element of presumptive bias the council may be perceived to have in considering these matters.

On 27 May 1997 the independent commissioner determined that the applications for subdivision and land use consent be notified for the reasons that:

1. the subdivision itself will create a complying lot, and together with its associated works will not adversely affect the environment or any person;
2. the subdivisional plan shows a building platform which has clearly been drawn to accept a large residential unit of specific floor size and shape which will be in full view of neighbouring properties. No evidence has been provided to me to show that such a unit will comply in all respects with council's rules for a second residential unit on this site. Accordingly I am unable to conclude that the adverse future effect on the environment will be minor;
3. the history of this case illustrates the intense concern of the neighbours, which, combined with reason 2 above, indicates that it can not be held to be "unreasonable in the circumstances" to require the written approval of affected persons.

The applicants then requested that the application be placed on hold and made an alternative application for vegetation clearance, earthworks and retaining wall construction for the purposes of land

stabilisation. On 18 June the commissioner determined that this application should not be notified.

In June 1997 a resident expressed concern to the council at the lack of specific information about the new consent application for 16 Seacliffe Avenue. The council replied that “unless it receives a request under the Official Information Act that the council is not compelled to forward detailed information regarding applications to other parties albeit those parties may consider themselves to be affected by an application. Although you have not made a formal request for information under the Act in this instance herewith, please find enclosed the information requested numbered in the same order as listed in your letter.”

Local Government Official Information and Meetings Act

Instead of the Official Information Act 1982, the Local Government Official Information and Meetings Act 1987 applies to local authorities. Any person may request information from a local authority. There is no requirement that the request should be in any particular form, other than the local authority may require the person making the request to be more specific about the information sought. The request need not refer to the Local Government Official Information and Meetings Act.

The information contained in and accompanying an application for resource consent is official information. If the application is notified, the notice should state where the full application and accompanying information may be viewed (s 93(2)(f) RMA). Where an application is not to be notified, there is no presumption that access to the information should be restricted. Given the public interest in resource management matters and the intention of the Act that only activities with minor effects may be dealt with without notification (if affected persons give their approval), it is generally unlikely that there would be good reason within the Local Government Official Information and Meetings Act to withhold any such information.

On 29 September 1997 the independent commissioner provided the council with a determination on the application to relocate a six metre pohutukawa tree. The independent commissioner was not convinced that immediate neighbours had been made aware of the proposal. The independent commissioner stated “I am quite firm in my view that this neighbour should be made aware of the proposal by Council before any activity associated with the proposal commences on the site. This would be best achieved by a knowledgeable officer making a personal call on [the neighbour].”

The neighbouring resident was subsequently advised by council through the mail in a letter dated 3 October 1997 (received on the

afternoon of 4 October 1997). The application for the pohutukawa tree to be relocated four metres to the south-east to enable construction machinery to gain access to the rear of the property had been approved. The neighbour received the letter after excavation and relocation of the tree had been completed.

Summary of issues from the case study

Issues of relevance from this case study include:

- the site plan that was submitted with the 1995 application did not accurately portray the vegetation cover. Only five trees were shown on the site to be cleared when around 90% of the site was covered in native bush;
- the council planner did not visit the site to check the accuracy of the site plan for the 1995 application or the effects on adjacent neighbours;
- the council planner only briefly reviewed the non-complying application (the worksheet recorded 30 minutes spent on the application);
- the 1995 consent application for a non-complying activity was not notified even though the written approval of affected persons was not obtained [it was considered by the council planner that the neighbours were not affected];
- the extent to which residents felt obliged to challenge the resource consent granted for the subdivision of the land in 1995;
- the recommended notification of the application for resource consent in 1997 by the independent commissioner.

5 URBAN VEGETATION MANAGEMENT APPROACHES

This chapter provides a brief overview of selected approaches for the management of urban vegetation from both New Zealand and overseas.

Waitakere City Council Green Network Strategy

The Waitakere City Council's green network strategy is an important element in the city's open space provision and comprises four natural areas described in the proposed district plan (riparian margins, protected areas of outstanding native vegetation, coastal areas and managed areas of significant native vegetation). It links existing open space, streams and bush remnants into an ecologically continuous network extending from the Waitakere Ranges, along the stream and road networks, and across open spaces, to the sea. The council has identified and mapped a green network comprising the margins of streams, rivers and lakes, coastal margins, areas of native bush, and linkage areas that have the potential to be replanted as "ecological corridors" between isolated bush fragments (Waitakere City Council 1996).

The green network serves a number of ecological and natural hazard purposes as well as enhancing visual amenity in the city. It will be used:

- to protect significant vegetation and wildlife habitats;
- to develop ecological corridors, which will allow for the movement of wildlife and the slow migration of plants;
- to protect significant land forms;
- to protect water quality in streams and waterways bordered by the network;
- to make the city a more attractive place visually;
- potentially to service household and business needs (for example by providing the opportunity for land based sewage disposal, or siltation ponds);
- as a flood protection tool;
- to provide public access to and along the coast, streams, lakes and other waterways;
- to help integrate the city's natural and urban environments; and
- to help create a new city form based on the concept of a series of higher density "villages" or "nodes" separated from one another by the green network, but also linked by means of waterways and cycleways.

5.1 New Zealand approaches

5.1.1 Ecosystem management

A green network will also provide life supporting systems for all residents and reduce potential future council costs needed to abate carbon production in the city or peak flood flows.

Christchurch City Council Waterway Enhancement Programme

The Christchurch City Council's Water Services Unit administers the city's water supply and drainage functions. Since 1989 part of the unit's activities have involved the maintenance and enhancement of natural waterways and the creation of wetland habitat. The Waterway Enhancement Programme involves enhancing the natural and amenity values of streams with the close involvement of the community. In some cases, this involves removing pipes, returning the stream to its natural character, and improving the vegetation and landscaping. This is a large project; about 20 km of enhancement work has been started but another 280 km needs to be undertaken (Worrall 1996).

To assist in the planting of natural stream banks, the unit has provided the community with guidelines for indigenous planting alongside streams in Christchurch (Lucas Associates & Meurk 1996). The streams and wetlands can become community assets and provide important habitat for indigenous plants and birds.

5.1.2 Asset management

Christchurch City Council

In Christchurch City an asset management programme for parks and reserves has been prepared to provide for the ongoing maintenance of these areas. Maintenance will include a tree replacement programme. The council has recently decided to retain excess road reserves in order that they may be planted and landscaped to enhance local amenity values. The council has adopt-a-park, adopt-a-riverbank, and adopt-a-cemetery schemes to encourage community care and responsibility for local open space areas.

Street tree inventories

Street tree inventories using computer software programs are useful for managing the tree resources. Information, including the number of individuals by species, their sizes, and general condition, can be compiled and used to manage the street trees more effectively. Management decisions (ie pruning, removal, replacement) can be made to improve the health of individual trees and the tree population as a whole.

Several types of software are available to perform these inventories and most of them are compatible with GIS and/or CADD software systems. With the use of these software programs, other information such as the location of utilities, roads and buildings can be combined with the street tree inventory information on a single base map, creating a very powerful management tool.

The Tree Council (Auckland) Inc

The Tree Council is funded by the local authorities in the Auckland region. The Tree Council is an incorporated charitable society that has been serving the community since 1985 in the protection of mature trees. It aims to promote and coordinate effective programmes for the protection, management and planting of trees, particularly in the urban environment, to improve the quality of life in the Auckland region and to improve the Auckland treescape.

The activities of The Tree Council include:

- the organisation of seminars and the production of information on the importance and value of trees;
- the provision of assistance to councils to develop and implement comprehensive tree protection and management programmes; and
- the support of professional and community groups with tree planting, protection and maintenance and public consultation services.

The Tree Council, in consultation with the territorial authorities in the Auckland region, the Department of Conservation, the Ministry of Forestry and the Auckland Regional Council, has developed a regional tree plan. The tree plan provides strategies for a consistent and coordinated approach across the region for the management, preservation and enhancement of the treescape. It contains four main elements:

1. Tree protection: guidelines for comprehensive tree protection mechanisms in district plans, a mediation service to resolve disputes about trees, an advisory service to provide initial advice on tree matters to the community, and an evaluation system for the measurement and economic valuation of trees.
2. Tree landscape: a strategy to develop a consistent protection, enhancement, and management methodology for amenity trees in urban areas, local authority coordination and linkages to open space strategies, and clear policies, rules and guidelines for private and public landscape development.
3. Tree management: guidelines, information and professional advice for individuals, organisations and local authorities.
4. Tree inventory: guidelines for the preparation of a tree inventory, the establishment of an appropriate computer database showing the location of the treescape, and the location and assessment of rare, endangered and significant trees (The Tree Council, no date).

National Corridors of Green Programme, Australia

The National Corridors of Green Programme funds re-establishment of native vegetation and conservation of remnant bush across regions and catchments. The programme complements other Commonwealth initiatives such as the One Billion Trees and Save the Bush programmes as well as various state initiatives.

5.1.3 Organisations

5.2 International approaches

5.2.1 Habitat management

The National Corridors programme supports community projects based on sound ecological principles that:

- enhance nature conservation;
- protect land and water resources; and
- maximise opportunities for ecologically sustainable economic benefits.

The programme aims to:

- establish larger areas of linked remnant native vegetation in a network of reserves, buffer zones and corridors;
- protect and enhance biodiversity and agricultural production;
- coordinate an integrated, community driven regional approach to vegetation protection and re-establishment;
- provide planning and technical support for corridor projects;
- encourage business and government agencies to contribute to corridor projects;
- create employment opportunities; and
- support community monitoring and research.

Corridors of green are being developed in many urban areas. Streets, private gardens, parklands, recreation areas, foreshores and waterways are being linked to form urban green webs. Corridors of green can improve the urban environment and provide links to rural and wilderness areas.

Local Greening Plans, Australia

Local greening plans by local authorities constitute a new approach to sustainable land use and vegetation planning. Firstly, local greening plans bring together scientific information about ecological value with current best practice for vegetation management and integrate these into planning policy. Secondly, a plan is developed in partnership with the community and helps to resolve conflicts over land use (Greening Australia 1996).

A local greening plan is a mapped and publicly endorsed vision of a future landscape, providing a method of monitoring progress towards community goals. It includes inventories of vegetation assets and maps of areas of importance for conservation and rehabilitation. It is a systematic, strategic approach to vegetation and biodiversity management and securing valuable assets for future generations. It enables a council to take a long-term, whole area and whole systems approach to its biological resources.

At the simplest level a vegetation inventory can be a map of tree cover showing broad areas of forest, woodland and grassland. At a more sophisticated level, the vegetation inventory includes additional data (taxonomic group, height, canopy density, foliage cover), the state of vegetation cover (degree of disturbance, presence of endangered

species etc), and other information on attributes and significance of the vegetation.

Greening plans can be used to:

- identify areas that need to be protected or rehabilitated;
- identify the mechanisms councils can use to protect the community's natural resources;
- link conservation to economic benefits;
- link planning to land management and community education;
- prioritise council's actions in response to its obligations under state of environment reporting and national objectives such as ecologically sustainable development, Agenda 21 and the Convention on Biological Diversity; and
- reduce community conflict over development.

Newcastle City Council, Australia

The Newcastle City Council in New South Wales, Australia, has a number of programmes to improve habitat management and enhancement (Newcastle City Council 1997).

- Newcastle City Council Nursery Community Greening Programme: the programme encompasses the collection and propagation of local indigenous plants, education and training, provision of an arboretum, co-ordination of volunteer groups and management of the tree planting programme.
- Tree planting programme: this programme operates by planting of transport corridors and suburban streets, replacing of unsuitable existing trees by the council's urban tree team, and advising street planting groups on the correct species and assistance with plants and materials for projects.
- Bushcare: a volunteer programme supported by the council to conserve and enhance reserves under the control of the council. The programme encourages participation by individual residents and community groups concerned about the deterioration of local bushland. Without the support of local groups many of the reserves and natural bushland areas would continue to degrade through weed infestation, misuse and erosion.
- Community mulcher programme: this aims to reduce green waste going to landfill and to recycle greenwaste at the local level. A mulching machine is available for use by residents, Bushcare groups, schools and volunteer organisations.

The Newcastle City Council administers a tree management bylaw that requires council approval where pruning or removal of a tree greater than 3 m in height or having a branch spread of 3 m or more in diameter is proposed. Council consent to prune a tree is conditional on tree pruning techniques used being in accordance with the Australian standard: *Pruning amenity trees* (AS 4373). Council consent to remove a tree is conditional on a replacement tree being

planted in a suitable location within the property to which the consent applies. Approval to remove a tree within 3 m of any proposed building, structure or permanent driveway is generally not granted prior to approval of the building application.

Municipality of Leichhardt, Sydney, Australia

The municipality of Leichhardt is located in Sydney's inner west. The local government area totals around 1225 hectares and it has a population of around 60,000. The area is a densely developed, inner-city area with a diverse population and mixture of land uses.

The 1996 state of environment report documented an action plan for greening the city (Leichhardt Municipal Council 1997). Local indicators for land include remnant vegetation (state), urban open space (state), changing land use (pressure), open space programmes (response) and revegetation programmes (response) (Leichhardt Municipal Council 1996)¹.

Leichhardt Council Action Plan for Greening the City
Develop a street tree planting strategy based on a street survey, with coordinated street tree themes, design guidelines, species lists and implementation plan.
Adopt a programme to gradually install aerial bundled conductors and underground cables in new developments and remove overhead electricity wires to reduce the need for tree lopping and consequentially allow for healthier tree growth and a greater variety of street trees.
Protect and retain existing trees and other vegetation with consideration for climate modification and bird habitat through the development of more detailed criteria for the protection of trees under council's tree preservation order.
Improve maintenance practices for trees.
Produce a handbook of appropriate street trees and other plants and landscaping techniques.
Encourage residents to plant productive native plants to install nesting boxes for native birds and small mammals to encourage urban wildlife and to provide habitat in their gardens.
Increase school and community involvement in planting days through wider promotion.

5.2.2 Tree management

City of Vancouver, British Columbia, Canada

Tree by-law: The City of Vancouver has a tree by-law that governs the actions of all private property owners in Vancouver. A property owner is required to obtain a permit to remove any tree with a diameter 20 centimetres or more at 1.2 metres off the ground. If a tree has multiple trunks then the measurement is the sum of the diameters of the three largest trunks. The pruning of a tree does not require a permit.

¹ State of environment reporting can be undertaken using the state, pressure, response model. State is the condition of the environment, the pressures that human activities are placing upon the environment and the responses that agencies and groups are making to address those pressures and reduce adverse effects.

The by-law requires a certified arborist's report if a tree is to be removed. It provides for the removal of one tree per site in any 12 month period. Special requirements for the removal of more than one tree are:

- the tree is located within the building envelope;
- the tree is dead or dying;
- the tree is interfering with or in close proximity to utility wires as to be a danger and cannot be pruned and still maintain its health or reasonable appearance; or
- the roots of the tree are interfering with, blocking or damaging a drainage or sewer system.

A replacement tree is required to be planted for every tree removed unless the number of existing trees on the property exceeds the minimum number required for the size of the property as specified in a schedule to the by-law. Once a replacement tree is planted on a site a landscape inspector must be informed so that a site inspection can be performed before a file is closed.

Every person who commits an offence against this by-law is liable to a fine and penalty of not more than \$20,000 and not less than \$5,000 for each offence or imprisonment for any period not exceeding two months.

Neighbourhood Trees for You programme

The City of Vancouver Neighbourhood Trees For You programme is a means for neighbourhoods to take a more active role in sharing information and encouraging tree retention in their areas. Neighbourhoods are encouraged to form their own groups to provide a support network for local residents who need advice on tree management on their property.

United Kingdom

British Standard 5837: 1991: *Guide for Trees in relation to construction.*

This standard provides guidance on the management of trees in relation to structures including identification of trees suitable for retention, planning of new developments, site assessments, protection of trees and prevention of construction damage, removal of unwanted trees, remedial work on damaged trees and planting of new trees.

The guide outlines legal protection options for trees including the use of conservation areas and tree preservation orders. No work shall be carried out which will affect trees in conservation areas without giving six weeks notice of intent to a local authority prior to the work being performed. This provides an opportunity for a local authority to make a tree preservation order to protect the trees. A tree preservation order prevents work on the trees without the consent of the local authority

except in certain circumstances. The order is not to prevent effective use of a site but it is intended to prevent damage to, or clearance of, trees prior to planning permission being granted. It allows negotiation whilst providing a means of controlling which trees should be removed, and a means of enforcing their protection during development work.

5.3 Selected approaches for the management of urban vegetation

The following table reviews selected approaches for the management of urban vegetation.

Approach	Summary of approach	Benefits	Costs	Effectiveness	Other
Urban vegetation plan	<ul style="list-style-type: none"> • Umbrella document for urban vegetation programmes and policies. 	<ul style="list-style-type: none"> • Assists integration and coordination of all programmes and policies. 	<ul style="list-style-type: none"> • Costs of preparation and review. • Expertise required to administer plan and programmes. 	<ul style="list-style-type: none"> • Good for integrating various programmes. • Will not achieve desired outcomes without practical implementation. 	<ul style="list-style-type: none"> • Need for buy-in from all parties.
National standard on management of trees eg British standard	<ul style="list-style-type: none"> • National standard on the management of trees. 	<ul style="list-style-type: none"> • National direction and consistency. • Provides advice on tree management and how to manage effects of building construction. 	<ul style="list-style-type: none"> • Costs of preparation and review. • Costs of implementation. • Expertise required to administer standard. • Cost of enforcement. 	<ul style="list-style-type: none"> • National standard. • Will not achieve desired outcomes without practical implementation. 	<ul style="list-style-type: none"> • May not meet desired local standards.
Urban vegetation indicators	<ul style="list-style-type: none"> • Indicators assist monitoring the state of urban vegetation and major changes. 	<ul style="list-style-type: none"> • Provide regular indication of the condition of urban vegetation. • Local community can be involved with monitoring. 	<ul style="list-style-type: none"> • Costs of preparation and review. • Cost to monitor state of the environment and evaluate data. 	<ul style="list-style-type: none"> • Provides information on the state of urban vegetation. • Will not ensure sustainable management without other programmes. 	<ul style="list-style-type: none"> • Requires action after results obtained from monitoring. • Must be consistently applied so time series data can be obtained.
Street tree planting strategy and guidelines	<ul style="list-style-type: none"> • Strategy outlines approach for planting and managing street trees eg planting of coordinated street tree themes. 	<ul style="list-style-type: none"> • Can include design guidelines, preferred species lists, guidance on planting and implementation plans. • Will assist asset management. 	<ul style="list-style-type: none"> • Costs of preparation and review. • Expertise required to implement strategy. 	<ul style="list-style-type: none"> • Promotes vegetation management in the public environment. • Will not allow for vegetation management over large area. 	<ul style="list-style-type: none"> • Indigenous plants can be sourced from local areas to assist management of biodiversity.
Neighbourhood tree programmes	<ul style="list-style-type: none"> • Local community involved with management of urban vegetation. 	<ul style="list-style-type: none"> • Local community actively involved in vegetation management. • Local responsibility. • Opportunities for environmental education. 	<ul style="list-style-type: none"> • May be difficult to maintain interest and commitment to programme. • Coordination and facilitation required. • Cost to community. 	<ul style="list-style-type: none"> • Requires some funding and assistance from lead agency. • May not ensure outcomes without support of other programmes. 	<ul style="list-style-type: none"> • Could function similar to an urban landcare group.

6 DISCUSSION OF CRITICAL ISSUES

This chapter reviews and discusses critical issues relating to the management of urban vegetation in North Shore City. The chapter begins by noting the importance of the management of urban vegetation as part of the sustainable management of the urban ecosystem. It then examines issues pertaining to assessment and identification, policies and plans, resource consent administration, and monitoring and enforcement.

The management of urban vegetation in North Shore city is closely linked to the future growth and development policies of the city. As the population growth in the Auckland metropolitan area will continue to put pressure on the urban environment, management of urban vegetation becomes even more important for the future sustainable management of the city.

Trees are often recognised as contributing to landscape and amenity values in an urban area. However, their role in maintaining life-supporting processes and assisting the functioning of the urban ecosystem¹ (eg providing shade/shelter, habitat, noise mitigation, and reducing water runoff) is often not recognised.

6.1 Management of the ecosystem

Increasing international attention and debate on sustainability is being directed toward ideas of ecosystem services (eg Constanza 1997, Daly 1997). These are the functions carried out by ecosystems that ensure natural cycles (of water, carbon, oxygen, soil etc) continue to provide an environment that is conducive to some quality of life, including human life. Trees are an important part of these cycles as they are a primary source of oxygen, bind carbon, maintain water cycles in ways that reduce erosion for example. Ecosystem goods (such as food) and services (such as waste assimilation) represent the benefits human populations derive, directly or indirectly, from ecosystem functions. Because ecosystem services are not fully “captured” in commercial markets or adequately quantified in terms comparable with economic services, they are often given too little weight in policy decisions.²

¹ The Environment Act 1986 defines “ecosystem” to mean “any system of interacting terrestrial or aquatic organisms within their natural and physical environment”.

² The concept of ecosystem services is not taught at primary and secondary level in New Zealand and has only received adequate attention in tertiary institutions for the last 2 to 5 years (Dr John Craig, pers comm, University of Auckland 1998).

Appendix 3 lists some ecosystem services and the functions they perform.

The loss of vegetation cover from the urban environment has long-term implications. Once mature vegetation cover is lost, it takes some time (20 years or more) to re-establish and, with intensification, there may be reduced opportunities for providing areas of mature urban vegetation. The cumulative effect of the loss of individual trees and small areas of urban vegetation can have significant implications for wildlife habitat. The loss of a significant proportion of vegetation cover of a city can also affect the temperature range and thermal qualities of cities.

The debate about tree protection on the North Shore has revolved around individual property rights versus community rights (ie the common good), with a range of management options being considered. There is a need to shift the focus on the management of urban vegetation from individual trees (the individual property rights) to the management of the urban ecosystem (the community rights) where urban vegetation is managed as a significant part of this ecosystem.

The management of urban vegetation well illustrates the conflicts that arise in attempting to balance environmental rights and broader community interests with specific private property rights.

The retention of urban vegetation on a site can also have significant private benefits. In 1991 the Urban Land Institute, in cooperation with the American Society of Landscape Architects, examined eleven real estate developments in the United States to assess whether money spent on site planning, landscaping and preservation of mature trees justified the added cost of development. What they found was that landscaping and greenspace increased profits for developers while providing other benefits to both the landowner and the community. Specifically, greenspace and landscaping translated into increased financial returns of 5 to 15 per cent depending on the type of project (Urban Land Institute 1994).

The timeframe and type of vegetation is important when discussing changes in vegetation composition. Historically, changing land use from pasture to urban can result in greater tree cover as many landscaped areas can become well established with large specimen trees if sufficient space is provided for urban vegetation. Although areas of native bush can mostly be replaced, the issue is the time needed for an effective replacement. For example the water transpiration function of trees may take 20 to 100 years to replace.

Tree and bush retention is a significant challenge in North Shore City with residential development and intensification, the development of smaller sites, and the building of larger houses decreasing

opportunities for retaining urban vegetation. The council needs to meet this challenge by retaining trees where possible and also allowing the replacement of trees with appropriate species that will grow and thrive in the urban environment. As 75 per cent of vegetation in North Shore city is on private land, an assessment of the nature and quality of urban vegetation is urgently required.

The council could adopt a model similar to the management of natural forests where there is constant renewal that strikes a balance between old and new growth. If the council undertook an inventory of the significant urban vegetation of the city it could then provide for a programme of succession planting to ensure adequate tree replacement. This would be particularly important on council road reserves, parks, beaches and other public areas.

Without adequate council and community management of urban vegetation in North Shore City, the future scenario for urban vegetation could be one where there are only a few mature landmark trees, limited coastal vegetation (even though the symbol of the city is the pohutukawa), bush cover in the city being restricted to that on council reserves and a lack of variety of vegetation on private land. It is worth noting that the council removed from the district plan its expected environmental result for tree management: retention of trees within residential areas as assessed from five yearly aerial photographs.

The council has commented that the number of trees within the city being removed was outweighed by many more which are planted every day by both residents and the council's own planting programmes. However, this statement does not recognise the quality and age structure of the trees that are being lost, the change in size and nature of the replacement trees and the loss of ecological services in the medium term while the replacement trees mature.

The development pressures in the North Shore City urban area and the introduction of new building technologies is bringing construction to environmentally sensitive areas of the City ie on the coastal edge and in remnant bush gullies. This construction is bringing significant environmental challenges including changes to the cover and type of urban vegetation as well as natural hazard and stormwater problems (see box 6.1).

Box 6.1 Development approaches in sensitive environmental areas

Some developments in North Shore City are now occurring on more sensitive sites in the coastal environment and in the bush environment.

Box 6.1 cont.

These sites often have ground instability problems due to the presence of steep slopes, enhanced stormwater flow and vegetation removal issues that need to be addressed as part of any development.

It appears that many developers are utilising these sites by building on them in the same way as they would approach building on a “greenfields” site. This involves clearing the vegetation from the entire site and undertaking comprehensive earthworks (ie cut and fill) to modify the site and prepare a flat building platform. This approach takes no account of the natural environment or that problems of slope stability may occur on the site at a later date through the removal of the vegetation and siteworks. There is no account taken of the reduced loss of ground water through transpiration and that there may be increased service costs for the council. Increased stormwater flows can also lead to the sedimentation of local streams and cumulatively will affect sedimentation in the harbour.

The development of new building approaches on these sites is needed and could be explored through a joint council/development firm initiative. This approach could lead to alternative ways of building in these environments that would reduce the environmental effects.

To provide for successful developments and the management of urban vegetation will require exploring:

- the use of trade-offs (eg keeping trees in lieu of carpark requirements or allowing greater height);
- the use of alternative building designs (eg location of the development on the site, separation of garage from house, joining buildings to create space, using glass in the roof and rerouting services);
- alternative construction methods (eg root bridging, piled foundations and flexible and permeable surfaces);
- tree pruning or thinning;
- transplanting and replacement planting; and
- disincentives to destruction (bonds and conditions requiring tree protection during construction) (Wakeling 1995).

6.2 Identification and assessment of urban vegetation

The identification of significant urban vegetation in the city is essential if the council is to manage the effects of development on these areas. The development of an urban vegetation plan could be an appropriate mechanism to effect this (see chapter 6.3).

There has been no detailed protected natural area survey to identify significant natural areas and biodiversity values of North Shore City even though this was promoted for inclusion in the council’s annual plan for three years in a row. North Shore is the only part of the Auckland ecological region that has not been surveyed as part of the protected natural areas programme. In the past the Auckland Regional

Council has offered to share the costs of funding the assessment but this offer has not been taken up.

The North Shore City Council has an important role in assisting the management of biodiversity in the city, and thereby the wider region. New Zealand has signed and ratified the International Convention on Biological Diversity and it has a suite of obligations, which include the conservation of biological diversity.³ A recent survey has discussed the important role that local authorities have in promoting the protection of biodiversity but it concludes that there are many barriers to achieving the protection that is required including a lack of information, a lack of council expertise and a lack of monitoring (Froude 1997).

In addition to an ecological assessment, the economic value of urban vegetation could be assessed using cost-benefit analysis techniques (eg contingent valuation or hedonic pricing). This could assist in establishing the existence values and option values for areas of urban vegetation.

Sections 6 and 7 RMA address the protection of urban vegetation in the context of broader matters. In particular, paragraphs (a), (b) and (c) of section 6, and paragraphs (c), (d) and (e) of section 7:

Matters of National Importance (s 6 RMA)

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

(a) The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:

(b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:

(c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

Other Matters (s 7 RMA)

6.3 Policies and plans for the management of urban vegetation

³ Biological diversity is defined as “the variability among living organisms from all sources including, *inter alia*, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems” (International Convention on Biodiversity 1992).

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to--

- (c) The maintenance and enhancement of amenity values:
- (d) Intrinsic values of ecosystems:
- (e) Recognition and protection of the heritage values of sites, buildings, places, or areas:

These paragraphs, together with s 5 of the RMA (the Purpose) provide a comprehensive list with sufficient justification for territorial authorities to manage urban vegetation cover if they so desire. Section 5 includes the so-called “environmental bottom-line” of “safeguarding the life-supporting capacity of air, water, soil and ecosystems.”

One of the important issues for urban vegetation management is the identification of what might be significant trees, groups of trees or other vegetation. To determine significance requires a process that includes:

- assessment of urban vegetation and the compilation of an inventory;
- identification of criteria for assessing what is significant eg heritage, landscape, ecological or botanical values;
- consultation on what are the thresholds for what vegetation should be retained, replanted or removed; and
- consideration of a “green network” where a grove of trees or other vegetation is a link in a wildlife corridor for example.

Consultation with the community would occur at each step after the initial inventory had been compiled.

The proposed North Shore district plan currently provides for the management of urban vegetation through measures such as the coastal conservation area, the residential 2 zone and the scheduling of significant trees. However, the Natural Environment section of the proposed district plan was originally written with “general tree protection” as a key mechanism for bringing about the desired objectives in the plan. In light of the decision by the council to remove “general tree protection” from the proposed district plan, it is not clear that the proposed district plan still retains sufficient ability to deliver on the natural environment objectives.

As noted in chapter 2, the removal of general tree protection is the subject of a reference to the Environment Court. Pending determination of that reference, the council could give consideration to how the Natural Environment section of the proposed district plan might be revised to ensure that the section is able to deliver on the natural environment objectives of the plan in the absence of general

tree protection. The council would then be in a position to finalise that section of the plan once the reference is determined.

A major issue for vegetation management is what “general tree protection” actually means. Protection normally implies the status quo but this is not what “general tree protection” means or even seeks to achieve. It is a regulatory mechanism to allow for the management of urban vegetation through requiring a resource consent to modify or remove vegetation over a certain height and/or girth. The value of a “general tree protection” mechanism is that it requires a landowner wanting to remove or do work on vegetation to submit a resource consent application and an assessment of effects including the consideration of alternatives to removal, such as crown lifting or thinning. An advantage of “general tree protection” is that the council can also require a landowner to replant a particular species or number of trees as a condition of a resource consent to mitigate the adverse effects of the removal of the original vegetation.

As a result of the North Shore City Council removing any “general tree protection” for significant trees from the proposed district plan, landowners can, if they wish, fell all trees including mature or significant trees on sites outside the coastal conservation area before they make a resource consent application for development of a site. By removing the requirement to obtain a resource consent through “general tree protection”, the council has not retained any mechanism for areas outside the coastal area, whereby trees can be prevented from being felled by landowners. **This issue is of concern to the community and has not been addressed by the council.**

As a short-term alternative to “general tree protection” over the entire city until there is a plan to manage vegetation in the whole urban environment, the council could examine the possibility of providing additional management in special character areas with significant urban vegetation. This would not be city-wide coverage but it would enable the vegetation of special character areas to receive additional management through assessment as part of resource consent processes. The character areas could also require particular species to be replanted as conditions of resource consents so as to maintain the special character of these areas.

Another approach is to use interim “general protection”. For example, the Tauranga District Council has used this mechanism while identifying all significant trees in the district (around 2000 trees at this stage). After significant trees have been identified for listing on a schedule, the Tauranga District Council will reassess whether the interim protection should be lifted.

Scheduling/listing of trees in the district plan

6.3.1 Options for vegetation management

Around 800 trees are on the current schedule although it only includes a small proportion of significant trees in the city and it is not representative of the most significant trees in North Shore City. There are also major differences in the significance of different trees on the schedule as a result of landowners being able to submit almost any tree to be placed on the schedule.

After the decision to remove “general tree protection” the council decided to provide for additions to the schedule of significant trees. Although an additional list was presented to the council in May 1997 there have been delays in getting a variation to the proposed district plan. The council requested a detailed evaluation of the list of 500 proposed trees and subsequently 37 were approved for inclusion in the district plan.

A major issue with a schedule or list of significant trees is that any changes to the schedule require a variation to the district plan and this is a very inefficient way to add or remove single trees from the schedule. Another issue is that if a property is subdivided, there is the possibility that the siting of a tree may be incorrectly identified, which means that it will have no protection. The potential for such errors would be decreased through the use of the council’s GIS database.

Given that the council has a policy of only scheduling trees with the permission of a landowner, it is unlikely that the schedule will ever contain all of the significant trees of the city. The reluctance of the council to schedule significant trees on any property weakens the purpose of having a schedule or list of significant trees.

If the council is to maintain significant trees in the city, then it should reconsider its policy of only listing trees on properties where landowners agree, although it should consult with the landowner before scheduling vegetation on their property. In recognition of the imposition of the scheduling of trees on private property the council could offer free tree maintenance and financial incentives. This would be in recognition that large trees can become inappropriate on some urban sites and interfere with sunlight, daylight and views. The council could also start charging those who chop trees down for the lost ecosystem services provided by the trees.

Urban vegetation plan

Policies and plans that address the management of urban vegetation are administered in several sections of the council eg planning, parks and roads. The council could investigate the preparation of an urban vegetation plan for the city that would link all the disparate vegetation management policies together in one document. The plan could address the management of coastal vegetation, bush areas, parks and reserves, significant trees, street trees and the planting of road reserves. The plan could include an urban vegetation policy to address replanting, restoration and rehabilitation of both indigenous

and exotic species. The relative significance of indigenous vegetation viz exotic species could be part of the urban vegetation policy.

The plan could assist an ecosystem approach to managing urban vegetation by the development of “green corridors” in the city eg the Green Network approach of the Waitakere City Council. The various areas of bush in the city could be linked together to form “green corridors” to improve wildlife habitat, enhance the protection of biodiversity, enhance the city landscape, enhance sustainability of people and reduce council costs.

There are costs to the council from interrupting natural cycles. For example when trees and shrubs are replaced with hard surfaces or even grass, there is a need to provide for greater peak flows of stormwater. There is a linkage between trees and the slipping potential of land as the tree’s ability to transpire water reduces the risk of a landslide. The broadleaved evergreen trees (like most indigenous trees but unlike willow and poplar) will be most effective.

Education.

The council has provided several publications on tree and bush management and some community boards have involved local communities in street tree management programmes and park planting programmes. The council is also developing a planting guide for character areas.

A crucial component of the council’s management of urban vegetation will be the provision of information to local residents on different approaches for managing trees on particular sites. Expert council advice and discussions with landowners may be able to bring about solutions that retain trees on a site through crown lifting or tree pruning rather than requiring tree removal. The provision of such information would be at a cost to the council but it would bring wider benefits to the entire community and enhance the management of urban vegetation.

The council could explore other initiatives such as appropriate planting guidelines for particular environments (eg the coast) and locating plant stock native to the area to enhance the protection of biodiversity. The involvement of garden centres in any urban vegetation programme would be essential to ensure vegetation appropriate to an urban area is available to residents. The succession planting of pohutukawa trees on the coast through initiatives such as Project Crimson could also be promoted.

6.4 Administration of resource consent procedures

Resource consent case studies

A summary of resource consent application information supplied by applicants and the council evaluation of the case studies is shown in the following tables.

Summary of resource consent application information supplied by applicants

Resource consent application information supplied by applicants					
Case study	Date of application	Assessment of environmental effects	Cumulative effects considered	Approval from affected persons	Site plan accuracy
20A Minnehaha Avenue	Dec 1994.	Brief. No assessment of effect on pohutukawa tree.	No.	No. Notified by council.	Good.
22A Minnehaha Avenue	Feb 1993. Renewed in March 1995. Sept 1997 (for work on tree roots only).	Non-existent. Very good including arborist report.	No. Very good.	Yes. Notified	Poor. Good.
24 Minnehaha Avenue	March 1996 (not proceeded with). Jan 1997.	Poor. Council requested more information. Brief but included arborist report.	No. No.	No. No (not deemed necessary by council).	Poor. Good.
17 Clifton Road	Oct 1995.	Very brief. No vegetation assessment.	No.	No.	Poor - trees not shown.
26 Park Avenue (work on site beyond anticipated in appl.)	March 1996 (initial Cert. of Compl. August 1994).	Fair after request for information by the council.	No.	One neighbour gave approval for building infringement.	Good.
76 Shakespeare Road (work on site proceeded beyond conditions of r/c)	Dec 1995.	Poor.	No.	No (not deemed necessary).	Good except for tree plotting.
4 - 8 Zion Road	March 1996.	Good.	No.	Not all adjacent neighbours.	Large trees shown but bush not indicated.
16 Seacliffe Avenue	March 1995. Sept 1997 (not proceeded with).	Brief. Good.	No. No.	No (not deemed necessary). To be notified.	Fair - not all vegetation shown. Good.

Summary of council evaluation of applications

Council evaluation				
Case study	Date of application	Report	Coordination between r/c and building consent	Other comments
20A Minnehaha Avenue	Dec 1994.	Full report on notified appl. Memo from conservation officer.	-	Decision appealed to the Planning Tribunal with consent order in 1996.
22A Minnehaha Avenue	Feb 1993.	Full report.	Poor coordination with release of b/c for foundation (Feb 97)	Council error in approving Cert of Comp in 1997 for discretionary activity.
24 Minnehaha Avenue	March 1996 (not proceeded with). Jan 1997.	Council requested more information. Brief report. Council requested more information.	- Yes but Parks not advised of pohutukawa on road berm.	-
17 Clifton Road	Oct 1995.	Very brief report. Council requested more information.	Engineering plans for non-complying terrace not checked by planners.	-
26 Park Avenue	March 1996 (initial Cert. of Compl. August 1994).	Very brief report.	Fair	
76 Shakespeare Road	Dec 1995.	Brief report.	Coordinated but more excavation of root system than expected.	Applicant required to provide arborist report as consent condition after r/c granted.
4-8 Zion Road	March 1996.	Brief report. Effects seen as internal to the site	Poor. More bush cleared than necessary.	Poor r/c conditions.
16 Seacliffe Avenue	March 1995. Sept 1997 (not proceeded with).	No site visit. Very brief evaluation. Good. Independent consultant's report.	Good. -	- -

The case studies cited in chapters three and four raise some serious questions about the council evaluation and decision making procedures for resource consent applications.

Significant features of the resource consent applications reviewed in the case studies include:

- the poor quality of assessments of environmental effects submitted by applicants for resource consents in relation to urban vegetation. In particular, there was often little or no assessment of the effects of a proposed development in relation to the objectives and policies of the

district plan. There was often no assessment of effects on urban vegetation unless the council required additional information in the form of an arborist's report;

- the lack of assessment of the cumulative effects of individual development proposals on the overall environmental health and amenity values of areas or groves of urban vegetation;
- the lack of written approval from affected persons eg adjacent neighbours; and
- site plans that were submitted with applications did not identify the location or the significance of any vegetation on the site.

However, environmental management under the RMA is effects-based and an assessment of environmental effects appropriate to the nature, scale and extent of the predicted effects is essential for the RMA approach to work (s 88(6)). General information that should be provided where urban vegetation is affected would include:

- the topography of the site;
- site boundaries and location of proposed development and the urban vegetation;
- the type and size of urban vegetation (eg height, dripline, likely root system) and the effects of the proposed development;
- the context of the vegetation and the character/landscape of the site and immediate area and the effects of the proposed development; and
- an assessment of the existing health of the urban vegetation and the effects of the proposed development.

Council evaluation

The case studies pertaining to the council's resource consent evaluation procedures have illustrated:

- site visits by council officers in order to inspect the site and consider the environmental effects of any proposed development are not routinely carried out. There is also a lack of documentation of site visits.

The lack of site visits means that the council is relying on consent applicants to provide them with appropriate information about a site. However, as can be demonstrated from the case studies, consent applicants have not always provided the council with accurate information and the council needs to check the effects of any proposed development on the site and surrounding area;

- the council not requiring applicants to consult with affected persons or obtain the approval of affected persons for developments affecting significant urban vegetation and the stability of adjacent property.

If an applicant does not obtain the written approval of affected persons to a proposed development, the council cannot be confident

that the effects of the development have been fully assessed or that full information about a site has been obtained. The council needs to ensure that adjacent residents know about and have been consulted about an application and the council then can take these views into account in its decision-making. If an applicant was asked to consult with affected persons and to document any views, then these could be checked by the council, without triggering a notified application. The use of formal written approval forms that contained information about the rights of third parties would also be of use to the council;

- the brief council evaluation of assessment of environmental effects and the lack of a detailed report evaluating any application against the objectives, policies and assessment criteria that are specified in the district plan.

If the council does not evaluate applications against the objectives, policies and rules of the district plan, the council cannot be confident that it has upheld the intent of the district plan. The lack of a detailed written report on any one application makes it difficult to assess why a particular decision was made and it leaves the council open to challenge.

The council has stated in the reply to the Ombudsman about 24 Minnehaha Avenue in August 1997, that it was not prepared to conduct its own review of information provided as part of a resource consent application (ie an applicant's arborist's report) as demonstrated. However, an arborist's report that is written for an applicant will, along with other relevant information, need to be carefully assessed and council may require an independent opinion as to the effects of any development and possible solutions;

- the council failing to coordinate the evaluation and determination of resource consent and building consent applications;
- council officers failing to check their legal interpretation of the RMA for assessing existing use rights or the issuing of certificates of compliance (eg 22A Minnehaha Avenue).

Resource consent conditions

The quality of resource consent conditions is often vital to maintaining the quality of urban vegetation on a development site. The case studies have illustrated that:

- the council commonly requires landscaping as a condition of residential development and this commonly requires the planting of large specimen trees;
- changes were made to the consent conditions by council officers without documented reasons (Clifton Road);
- there have been inadequate resource consent conditions set to protect pohutukawa trees from effects eg from the construction of

an accessway. There were inadequate resource consent conditions to protect remaining vegetation on a site and the privacy of surrounding neighbours. The actual location of a 1.8 m high protective plywood fence between a protected tree and a building platform was not specified;

- the council has required very small bonds (\$1000) for compliance with resource consent conditions; and
- there is inadequate council supervision of work among protected trees.

Recent improvements in procedures

Following major restructuring in 1995 and 1996, Development Services, the council's resource consent processing section, has undertaken a number of initiatives to improve resource consent procedures. For example various resource consent procedure checklists have been prepared. These include:

- assessing and reporting on a non-notified land use consent application (date of issue 16 June 1997, first issued in May 1997): council officers are required to prepare a full written assessment of the application against the district plan, including a site visit for every application. This assessment is then presented at a Community Board Town Planning Sub-committee hearing where the subcommittee will make a decision;
- processing notified resource consent applications (date of issue 16 June 1997, first issued in May 1997): council officers are required to assess the application against the district plan and perform site visits for every application. A recommendation is prepared for the Community Board Town Planning Subcommittee to make a decision on notification. After a decision to notify, the officer is required to follow various administrative and reporting procedures eg distribute copies to other departments requesting comments, arranging for the hearing, and preparing a report on the application and submissions.

It is worth noting that, although the non-notified checklist requires a council resource consent planner to obtain comments from the senior urban design planner for developments in the Residential 3 (built heritage) zones, there is no requirement to obtain comments from an urban vegetation specialist where there are effects on urban vegetation. It is also unclear how the council processes an application which may, on an initial assessment, be considered as a non-notified application but the scale of effect is such that it needs to be notified.

Unresolved issues that are relevant to the administration of resource consent processes affecting urban vegetation include:

- the need for site visits for all resource consent applications, including applications for subdivision consents, to check on the urban vegetation at any site and to evaluate the quality of site plans that are submitted as part of any application;
- the need to use appropriate expertise (eg ecologists, arborists and landscape architects)⁴ to assess the significance of any proposed activity on urban vegetation and to evaluate an assessment of environmental effects submitted as part of a resource consent application. It is not sufficient for a general resource planner to be used for this evaluation where there will be effects on urban vegetation;
- the need to consider the cumulative effects of discrete developments on the wider neighbourhood and the total vegetation resource of the city;
- the need for detailed council evaluations of resource consent applications to assess any application against the relevant provisions in the district plan; and
- the need for a senior officer to examine and check the evaluation of an application before the reports are forwarded to the decision-making body in order to improve the quality of reporting to council committees.

The council has as a performance measure in the 1997/98 annual plan to develop a process for auditing resource consents. A regular audit of a number of randomly selected resource consent applications and council evaluations would assist in improving the quality of processing of resource consent applications by the council. This audit could be undertaken by an independent consultant in association with senior management of Development Services. Any issues raised from the audit could be the subject of further training sessions for council officers. This type of audit would also improve community

⁴

Periodic consultation with specialists in related disciplines could include:

- agricultural engineers and hydrologists (topography, drainage and flood control);
- soil conservationists (soil interpretation and conservation measures for wind and water erosion control);
- turf specialists (lawns supporting trees, parks adjacent to urban trees and golf course tree maintenance);
- landscape architects (comprehensive design and urban tree planting plans);
- horticulturists (selection, culture and management of urban trees, shrubs and vines);
- arborists and tree surgeons (pruning and repair of individual urban tree injuries);
- entomologists (urban tree insect identification and management);
- plant pathologists (urban tree maladies, identification and management of diseases);
- weed control specialists (control of weeds and undesirable trees); and
- community planners and site planners (overall planning).

confidence in the administration of resource consent provisions. It would be difficult to conduct this audit without a documented audit trail of evaluations of resource consents by council planners.

An evaluation of a resource consent application, including an assessment of the effects of an activity on urban vegetation, may require both qualitative and quantitative analysis, the use of professional expertise and the consideration of effects from on-site, off-site and community perspectives.

In terms of the council evaluation of an application for a resource consent and the effects of a proposed activity on urban vegetation, it is vital that experienced professionals are available to assist planners with the evaluation of resource consent applications. The inadequate use of professionals with the required expertise to assess effects on amenity values may compromise the adequacy of an evaluation.

The total urban vegetation expertise at the council for a city of some 170,000 people consists of:

- an ecologist in the policy section;
- a planner with some botany training in the resource consent section; and
- an arboriculturalist in the parks section.

The council lacks sufficient expertise to assess effects on ecosystem functioning and effects on urban vegetation, in the short term or longer term. The Parks Department does not have the resourcing to advise landowners as to the management of urban vegetation even though the department has an interest in advocating for improved management of urban vegetation. Additional resourcing will be required if the council is to improve its management of urban vegetation through the administration of resource consent procedures. This issue of resourcing should be considered within an in-depth examination of the total budget required for urban vegetation management.

The Local Government Commission, in its reasons for recommending that community boards should have no powers to consider, hear or determine resource consent applications, stated:

- there would not be the opportunity for the input of a specialist group with expertise to deal with a wide variety of applications; and
- there is a danger that board members, because of their closer involvement in the local community, could possibly be subject to greater political pressure.

The consideration of applications for resource consents is a complex undertaking requiring knowledge of environmental and legal factors. Removing the decision-making powers from community boards and

placing them in a council hearings committee could assist consistent decisions on resource consent applications that affect urban vegetation across the entire city. Advice on any effects of an application on the community could be obtained by appointing a community board member to the council hearings committee or an officer could consult with a community board to ascertain its views on an application.

A critical requirement for the management of urban vegetation is the quality of monitoring systems to quantify the current status of the urban vegetation resource and track its maintenance over time. There is considerable scope for various forms of aerial monitoring to be used to assess the urban vegetation of New Zealand cities although few local authorities appear to be using such techniques. All the characteristics of vegetation (ie diversity, age, structure and the fauna it supports) require measurement if the objective of more sustainable urban vegetation is to be promoted and achieved. Sustainable urban vegetation will meet landscape, amenity values and ecosystem servicing functions (eg shade, shelter, and noise control) for urban communities (refer to appendix 3 for a comprehensive list of ecosystem services).

Monitoring and assessment of the numbers and types of resource consents granted will be fundamental to a council's ability to assess the adequacy of different approaches to tree and vegetation management.

Council monitoring

Since 1992 the council has attempted to establish a comprehensive monitoring programme. It conducted a land use study in 1993. In 1993 the council also selected several key indicators to monitor urban vegetation and native species but little work has been undertaken by the council since that time.

The council reported on the monitoring requirements of the proposed district plan in October 1997. Earlier, in the June 1997 draft district plan monitoring report, the council's five year monitoring programme proposed that land use surveys be undertaken twice a year. Coastal aerial photographs and native vegetation surveys would be undertaken every five years.

It is unfortunate that the 1993 land use study has not been repeated; information on the extent of land use change and the area of native bush in private or public ownership could give some indication as to what effect residential development is having on the total urban vegetation of the North Shore area. The council does not know what percentage of vegetation cover or the type of vegetation cover that is being removed or altered each year. This makes planning for the future management of urban vegetation very difficult. The council appears to be relying on the goodwill of landowners to replant

6.5 Monitoring and enforcement

vegetation to maintain the overall ecosystem but it has no way of knowing whether this result is being achieved.

The council will need to consider ways of reporting on the state of the city-wide and local area urban vegetation and trends in the urban vegetation. Information from a number of sources such as compliance monitoring information, detailed site monitoring data, aerial and satellite photographs, and spatial surveys could be used. The council could report on the state of urban vegetation as part of a state of the environment report in the council's annual plan. This proposal was first suggested in the 1992 council monitoring report but it has yet to be adopted.

Compliance monitoring and enforcement

Until 1996, the council had a policy of requiring all council planners to spend some time on the compliance monitoring team. Although this provided all planners with some experience of compliance monitoring, it did not promote a consistent approach or allow for council officers with specialist skills to be employed in this work.

In 1996 in response to concerns about the lack of compliance monitoring and the inefficient handling of complaints, the council established a three member compliance team. Recently the team has been joined by a building inspector. The council has also contracted an arborist who may be called out by council compliance officers to assist them with assessing damage to urban vegetation and appropriate enforcement action.

Concerns have been expressed about the council response to enforcement matters. For example, in July 1997 a community board member commented on work at three locations and stated that:

A common element is that developers are consistently and persistently pushing beyond the limits of their consents, defying the council to do anything and getting away with it.

The Shakespeare Road case study showed the non-compliance of the developer with the vegetation protection rules and conditions of resource consents. Although the individual actions may have had minor effects, the actions demonstrate scant regard for the council's requirements and attempts to provide for tree protection.

Because the team leader is now required to devote time to management of the team, this means that there are effectively 2.5 council officers conducting district plan and resource consent compliance monitoring. Given the level of development activity in the city in recent years and that such activity is increasing, it appears that this team is stretched to undertake all the compliance monitoring and enforcement action that is required.

The use of building and drainage inspectors to assist in general compliance monitoring could be explored. It is acknowledged that these inspectors do not have training in the RMA but if they were provided with copies of resource consents and conditions before they undertook site visits, they could quickly assess if a protective fence was still in place or if erosion controls were in place, thereby providing basic monitoring of a site for the council. They could then alert the council's compliance monitoring officers of difficulties with the development.

The council has often left residents to monitor works on adjacent sites as demonstrated in the Minnehaha Avenue, Seacliffe Avenue, Clifton Road and Shakespeare Road case studies. When the council is slow to respond to residents' concerns that there is illegal activity occurring at a site, residents may become frustrated about the lack of council action. The council needs local residents to assist it with general monitoring. It cannot watch every development site, but it needs to respond rapidly to concerns when they are raised. It is possible that local community board members could assist with the development of community monitoring programmes.

One of the council's annual plan targets requires complaints relating to resource consent conditions and uses of property to receive a response within two working days. While this target may be appropriate where a building is being constructed over several months and an infringement is such that it will not matter if the council takes two or four days to respond, the council needs to be able to respond much more promptly where urban vegetation is threatened. Several residents have expressed their concern that the council has been slow to respond to the concerns about developments where there is an alleged breach of the district plan or resource consent provisions (eg Clifton Road case study).

Le Roys Bush

In another compliance monitoring example, the *North Shore Times* reported (August 1997) that development at a Birkenhead building site had unintentionally spilled over into the Le Roys Bush Reserve resulting in damage to protected trees. The council was requiring the landowner to apply for a retrospective resource consent.

A Le Roys Bush Management Committee member had noticed an overflow of silt running down a stream in the reserve. The stream runs through a corner of the construction site of the 60 unit apartment block. In response to concerns the council requested the developer to prevent any further adverse effects on the reserve. These include controlling stormwater infiltration, managing silt run-off, assisting tree recovery, landscaping and stability matters. Extra hay bales had to be put in on the site and in the reserve, and clay had to be removed from around native trees. The compliance monitoring team had been unaware of the

problems on the site as the construction had started before the developer had picked up the building permit for the site.

Enforcement

The community board planning committees have the delegated powers, duties and discretions necessary in respect of abatement notices⁵, enforcement orders and interim enforcement orders on local issues. In general terms, any activity that breached district plan or resource consent provisions pertaining to urban vegetation would be considered a local issue.

From the evaluation of the case studies, it appears that the council takes a very long time to undertake any enforcement action against offenders who may damage or remove urban vegetation. A typical process involves the following steps:

- a concerned resident may notice an illegal activity and inform the compliance monitoring team who request the landowner to stop work;
- the compliance monitoring team then prepare a report for the next meeting of the local community board planning committee to make a decision on whether to proceed with an enforcement action and prosecution;
- after committee consideration, the case then goes before the next meeting of the full council regulatory committee for a decision on whether to undertake a prosecution; and
- after this committee's decision, the council's lawyers are then asked to prepare a case and advise the council on the legal implications of any action.

This process can take many months and during this time, the resident who first notified the council of the alleged breach of the district plan or resource consent provisions is not informed of any action by the council because the information is kept confidential. Some developers take advantage of the fact that councils are reluctant to initiate legal action due to onus of proof, costs of proceeding and competing issues that warrant council's attention. **A more speedy resolution of decisions on enforcement action and the enforcement of the rules for all landowners is required.** The new infringement notices available under s 343A RMA could assist the council in undertaking its enforcement duties.

Political pressure could equally influence whether a community board decides to recommend enforcement action. It would be more appropriate that a council officer brings all enforcement issues before the full regulatory committee of the council which would then decide on future enforcement action. This would also bring a more consistent enforcement approach across the entire city.

⁵ Abatement notices can be served on a consent holder by a council officer under delegated authority.

There has been a loss of community confidence in the council enforcing district plan provisions and the conditions of individual resource consents. The council needs to clearly signal to the North Shore community and, in particular, development agencies, that it is not prepared to tolerate breaches of the North Shore City district plan or conditions of resource consents. This may require the council to consider a "Prosecution first" approach, followed by arbitration and negotiation. In terms of the management of urban vegetation, a prosecution may not result in a fine that is greater than the cost of enforcement. However, the council may, as a result of arbitration or negotiation, be able to require a landowner to replant vegetation on a site or other appropriate mitigation actions (eg the replacement of a damaged or felled tree with a suitably mature tree).

It is acknowledged that this approach by the council would require adequate funding as enforcement action is expensive. At times the enforcement action may not bring a successful prosecution or the cost of the prosecution may be more than the fine imposed. However, the council needs to demonstrate to the community that it is prepared to take enforcement action, if the general community is to retain its confidence in the ability of the council to uphold the RMA and the community aspirations as stated in the district plan.

The following table summarises the assessment of the management of urban vegetation by North Shore City Council.

6.6 Summary

Criteria for assessing North Shore City Council management of urban vegetation	PCE Assessment
<p>The extent to which:</p> <ol style="list-style-type: none"> 1. the council has identified the nature of urban vegetation and, in particular, significant urban vegetation in the city environs. 2. the council has developed policies and practices to manage urban vegetation. 3. the council implements agreed priorities for the management of urban vegetation. 4. the council monitors and reports on the state of urban vegetation. 5. the council enforces planning provisions that provide for the management of urban vegetation. 6. parties affected by the management of urban vegetation are meaningfully consulted by the council at appropriate times prior to final decisions being made. 7. community action is encouraged by the council to manage urban vegetation. 	<ol style="list-style-type: none"> 1. The council has identified coastal vegetation, bush and some significant trees for protection under the district plan. There has been no PNA survey of the North Shore area. A 1993 land use survey recorded the area of bush in public/private ownership. This has not been repeated although the council intends to conduct biannual surveys. 2. The council has rules in the district plan covering the management of vegetation in coastal and bush areas and for some significant trees. The council's interim controls over the clearing of vegetation from sites not in special areas or a scheduled tree, until the reference to the Environment Court is heard, varies from one part of the city to another. Protection of vegetation is taken into account during subdivision. 3. The council has a programme of reserve acquisition and it is devoting considerable resources to acquire reserves. There is some debate among the community as to whether the council has implemented agreed priorities for protecting urban vegetation. The council lacks sufficient expertise to manage urban vegetation. 4. There has been little monitoring or reporting on the state of urban vegetation across the city. The council does not know what trends are occurring. The council is proposing to make significant improvements in the way in which it monitors development trends. 5. The council is slow to enforce provisions governing the management of urban vegetation. In some instances, residents have initiated enforcement action to uphold district plan provisions and resource consent conditions. 6. The council is not considering the effects on affected persons where an applicant for a resource consent does not consult with or obtain the written approval of affected persons. Parts of the community are losing confidence in the ability of the council to manage urban vegetation. The level of community satisfaction with vegetation controls is around 50%. 7. The council has produced several booklets on the management of trees and native bush and it has a number of reserve management committees for coordinating work in selected reserves. Community boards promote the council planting of street trees in local areas with the support of local residents.

Note: management includes identification, assessment, maintenance (eg planting and trimming), protection, monitoring, research and education.

7 FINDINGS AND RECOMMENDATIONS

7.1 Findings

Management of the urban ecosystem

1. Trees are often recognised as contributing to landscape and amenity values in an urban area, but their role in maintaining life-supporting processes and assisting the functioning of the urban ecosystem is seldom recognised.
2. Tree and bush retention on private land is a significant challenge in North Shore City with residential development and intensification, the development of smaller sites, and the building of larger houses. Development trends suggest that future residential and commercial development and urban intensification will bring increased pressure on urban vegetation.
3. The debate about tree protection on the North Shore has revolved around individual property rights versus community rights (ie the common good), with a range of management options being considered. There is a need to shift the focus on the management of urban vegetation from individual trees to the management of the urban ecosystem where urban vegetation is managed as a significant part of this ecosystem.
4. The council has a programme of reserve acquisition and it is devoting considerable resources to this programme.

Identification and assessment of urban vegetation

5. The council has identified coastal vegetation, bush and some significant trees for protection under the district plan.
6. There has been no protected natural area survey to identify significant natural areas and biodiversity values of North Shore City.

Policies and plans for the management of urban vegetation

7. The council has not reviewed the provisions of the proposed district plan taking into account the removal of the “general tree protection” provisions. Therefore it cannot be confident that the natural environment objectives of the proposed plan can be achieved.
8. There is often a misunderstanding about the meaning of “general tree protection” provisions. Protection normally implies the status quo but this is not what “general tree protection” means or

even seeks to achieve. It is a regulatory mechanism to allow for the management of urban vegetation through requiring a resource consent to modify or remove vegetation over a certain height and/or girth.

9. Although around 800 trees are scheduled in the proposed district plan, the schedule only contains a small proportion of significant trees in the city and it may not be representative of the most significant trees in North Shore City. The reluctance of the council to schedule significant trees on all properties limits the value of a schedule or list of significant trees.

Administration of resource consent procedures

10. Most of the case studies have illustrated that poor assessments of environmental effects were submitted by applicants for resource consents. There has often been little or no assessment of the effects of a proposed development in relation to the objectives, policies and rules in the district plan and no assessment of effects on urban vegetation unless the council required additional information in the form of an arborist's report.
11. The case studies have illustrated that the council only briefly evaluated some applications and the accompanying assessments of environmental effects. The council has often not produced adequate reports evaluating any application against the objectives, policies, rules and assessment criteria that are specified in the district plan. The council relies on a brief evaluation with planners in attendance at community board planning committee meetings, supplementing their reports with verbal information. This means there is often a poor audit trail from the AEE to the council evaluation and the reasons for the approval of any resource consent application.
12. The case studies have illustrated that there have been inadequate resource consent conditions to protect vegetation on a site. The council is now developing further measures to improve resource consent conditions.
13. Development Services, the council's resource consent processing section, has recently prepared various resource consent checklists for processing notified and non-notified resource consent applications. The checklists do not require a council planner to seek comments from an urban vegetation specialist where there are effects on urban vegetation.
14. The council does not conduct a regular audit of a number of randomly selected resource consent applications and council evaluations to assist in improving the quality of processing of resource consent applications. There is a performance measure in the 1997/98 Annual Plan for auditing of the processing of resource consents.

15. The council has a limited resource of personnel and expertise to assess effects on ecosystem functioning and effects on urban vegetation, particularly in the longer term.

Monitoring and enforcement

16. In 1992 the council attempted to establish a comprehensive monitoring programme but little work has been undertaken by the council since 1993. The council recently reported on the monitoring requirements in the proposed district plan in 1997.
17. Given the level of development activity in the city in recent years and that it is increasing, the compliance monitoring team, as presently resourced, is stretched to undertake all the compliance monitoring and enforcement action that is required.
18. The council has often left residents to monitor works on adjacent sites as demonstrated in the Minnehaha Avenue, Seacliffe Avenue, Clifton Road and Shakespeare Road case studies. When the council is slow to respond to residents' concerns that there may be illegal activity occurring at a site, residents may become frustrated about council's lack of effective action.
19. It appears that the council processes to decide on any enforcement action against offenders who may damage or remove urban vegetation are lengthy. This has resulted in a loss of community confidence in the council enforcing district plan provisions and the conditions of individual resource consents.

To the North Shore City Council:

7.2 Recommendations

1. To augment previous evaluations by undertaking a detailed survey and assessment of urban vegetation and biodiversity (eg using the methodology for assessing protected natural areas).
2. Pending the decision on the reference to the Environment Court, review the provisions of the proposed district plan to ensure that the natural environment objectives can be achieved with or without general tree protection.
3. Improve the processing and evaluation of resource consent applications involving urban vegetation through:
 - a) requiring comprehensive AEE reports in keeping with the scale and significance of the actual or potential effects of the application to be submitted by resource consent applicants;
 - b) preparing comprehensive reports on applications in keeping with the scale and significance of the actual or potential effects of the application including an assessment against the objectives, policies, rules and assessment criteria that are specified in the

district plan; and

c) using urban vegetation specialists for evaluation purposes where there are or may be significant effects on urban vegetation.

4. As signalled in the 1997/98 annual plan, conduct a regular audit of a number of randomly selected resource consent applications and council evaluations to assist in improving the quality of processing of resource consent applications.
5. Establish a comprehensive monitoring programme of the state of urban vegetation (eg through the use of satellite or other imagery) and improve the level of compliance monitoring throughout the city.
6. Streamline decision-making in respect of enforcement action and commit to using enforcement measures as a means of improving public confidence in district plan provisions and resource consent conditions that relate to the management of urban vegetation.
7. Undertake a further series of education initiatives with local developers, consultants and the wider community to:
 - a) improve understanding of the role and value (monetary and environmental) of urban vegetation;
 - b) improve the understanding of the requirements of the district plan and the council's approach to urban vegetation management; and
 - c) provide information on how to improve the management of urban vegetation.
8. Develop an urban vegetation plan to integrate all policies and programmes for the management of urban vegetation across the relevant departments of the council.

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APPENDIX 1 CONSULTATION LIST

Albany Community Board *

Birkenhead/Northcote Community Board

Department of Conservation Auckland Conservancy *

Devonport Community Board

East Coast Bays Community Board

Glenfield Community Board *

Local Government Commission *

Ministry for the Environment Auckland Office *

MP for Northcote, Mr Ian Revell

MP for North Shore, Dr Wayne Mapp

New Zealand Arboricultural Association *

North Shore City Council

North Shore City Council Planning Committee

North Shore City Council Regulatory Committee

Residents of Minnehaha Avenue

Royal Forest & Bird Protection Society - North Shore Branch

Takapuna Community Board

The Tree Council

The investigation team also met with a number of individuals in the North Shore area.

* = written contact only

APPENDIX 2 NUMBER OF RESOURCE CONSENT APPLICATIONS

Table A2.1 provides an overview of resource consent applications to the North Shore City Council for tree work in 1995/96 and 1996/97, whether they were granted or not, and if conditions were included.

Table A2.1 Resource consent applications for tree work, North Shore City Council

Tree work	Number of applications	Granted in full with conditions	Granted in full, no conditions	Granted in part, with conditions	Granted in part, no conditions	Not granted	Not known
1995/1996							
Pruning	74	61	1		2		10
Removal	118	95		1	4	4	14
Thinning	19	17			1		1
Dangerous tree	3	2					1
Not specified, usually root encroachment	34	30	1		1		2
1996/1997							
Pruning	64	51			4		9
Removal	102	79				4	19
Thinning	7	6			1		
Dangerous tree	-						
Not specified, usually root encroachment	35	29					6

APPENDIX 3

ECOSYSTEM SERVICES AND FUNCTIONS

Ecosystem Service*	Ecosystem functions	Examples
Gas regulation and SO _x	Regulation of atmospheric chemical composition.	CO ₂ /O ₂ balance, O ₃ for UVB protection, levels.
Climate regulation	Regulation of global temperature, precipitation, and other biologically mediated climatic processes at global or local levels.	Greenhouse gas regulation, DMS production affecting cloud formation.
Disturbance regulation of variability	Capacitance, damping and integrity of ecosystem response to environmental fluctuations.	Storm protection, flood control, drought recovery and other aspects habitat response to environmental mainly controlled by vegetation structure.
Water regulation processes	Regulation of hydrological flows.	Provisioning of water for agricultural (such as irrigation) or industrial (such as milling) or transportation.
Water supply	Storage and retention of water.	Provisioning of water by watersheds, reservoirs and aquifers.
Erosion control and sediment retention	Retention of soil within an ecosystem.	Prevention of loss of soil by wind, runoff, or other removal processes, storage of silt in lakes and wetlands.
Soil formation and	Soil formation processes.	Weathering of rock the accumulation of organic material.
Nutrient cycling	Storage, internal cycling, processing and acquisition of nutrients.	Nitrogen fixation, N, P and other elemental or nutrient cycles.

Waste treatment	Recovery of mobile nutrients and removal or breakdown of excess or xenic nutrients and compounds.	Waste treatment, pollution control, detoxification.
Pollination	Movement of floral gametes.	Provisioning of pollinators for the reproduction of plant populations.
Biological control	Trophic-dynamic regulations of populations.	Keystone predator control of prey species, reduction of herbivory by top predators.
Refugia regional or grounds.	Habitat for resident and transient populations.	Nurseries, habitat for migratory species, habitats for locally harvested species, overwintering
Food production	That portion of gross primary production extractable as food.	Production of fish, game, crops, nuts, fruits by hunting, gathering, subsistence farming or fishing.
Raw materials	That portion of gross primary production extractable as raw materials.	The production of lumber, fuel or fodder.
Genetic resources	Sources of unique biological materials and products.	Medicine, products for materials science, genes for resistance to plant pathogens and crop pests, ornamental species (pets and horticultural varieties of plants).
Recreation	Providing opportunities for recreational activities.	Eco-tourism, sport fishing and other outdoor recreational activities.
Cultural	Providing opportunities for non-commercial uses.	Aesthetic, artistic, educational, spiritual, and/or scientific values of ecosystems.

* Ecosystem 'goods' have been included along with ecosystem services.

Source: Costanza et al 1997

APPENDIX 4 NOTES FROM URBAN VEGETATION WORKSHOP

Background

The North Shore City Urban Vegetation Workshop was held on Wednesday 10 December 1997.

The purpose of the workshop was to enhance the collective understanding of the issues and needs for the management of urban vegetation in North Shore City. The workshop was to address identification, management, monitoring, and enhancement of urban vegetation and key actions that are required. It also focused on what is working and what is not - the key elements of the investigation. An anticipated outcome of the workshop was improved collective understanding of management needs and responsibilities for urban vegetation in North Shore City.

The programme began with a welcome and presentation of the Parliamentary Commissioner for the Environment's draft report. This was followed by presentations by several urban vegetation specialists including:

- Dr Bruce Clarkson and Dr David Pairman Landcare Research: measurement and assessment of urban vegetation including satellite imagery and thermal mapping.
- Dr John Craig, University of Auckland: the value of urban vegetation and its contribution to the management of urban ecosystems; and
- Mr Bryan Gould, President, New Zealand Arboricultural Association: arboricultural aspects of the management of urban vegetation.

A series of key questions that had arisen from the investigation were then discussed in small groups. The groups reported back to the workshop participants and a summary of the discussions is outlined below (the discussions are summarised under each of the key questions).

1a. What are the most significant urban vegetation issues facing NSCC in the short term?

- how do we increase vegetation, foster an interest in trees;
- the retention of significant areas of bush and vegetation - you can't bring them back;
- the loss of vegetation/trees through rapid development /the removal of historic trees/vegetation;
- stop the destruction of trees while the council does a stocktake/survey of natural capital;
- the gap between objectives of the district plan and regulations;
- enforcement of regulations - penalties inadequate, fines insufficient;
- lack of information on the trends in vegetation cover;
- population pressure and increased pressure on open space (as section sizes decrease from 800 m² to 325 m²);
- removal of vegetation before a resource consent is sought;
- the cumulative consequences of current planning decisions;

- the ability of council to purchase major tracts of trees/vegetation.

1b. What are the most significant urban vegetation issues facing NSCC in the long term?

- are we managing our vegetation to ensure long-term survival of the necessary hierarchy of vegetation;
- likely to be huge development pressures in the future on bush escarpments (Albany) and coastal protection areas;
- need to establish corridors of tree areas to allow bird flight north-south and east-west;
- a long-term strategy and overall policy is required including appropriate vegetation succession policy(ies);
- encourage public acknowledgment that trees are important to our lives and enhance visual quality of a city;
- perception of lack of practicable urban vegetation policy - lack of understanding/acknowledgement/awareness of what council has done and is doing;
- cost of implementing an urban [tree] management policy including damage to property of leaving trees there - pipes, houses, dampness etc;
- clearance and cut and fill can have detrimental effects on the remaining environment;
- definition of vegetation;
- the desire to maintain marine views through the removal of vegetation;
- monitoring of situation - existing, categories, targets.

2. How can private property rights and community rights be recognised to assist the management of urban vegetation (role of citizens and role of council)?

- public parks do not need to be open spaces - instead plant heavily to compensate for, or mitigate, the lack of trees on nearby private property which can usually only sustain smaller trees;
- sound landscaping advice “employed” by council. Ten [arborists] were employed at various levels by the Auckland City Council;
- compensation (including financial) should be paid if you retain significant trees;
- rewarding people with incentives such as rates relief if they build lower density housing in an effort to retain trees;
- need to establish vegetation assessment procedures;
- need a long-term plan for overview of what is essential in urban vegetation;
- improve the quality of assessment of urban vegetation at beginning of resource consent process;
- council to look at how it interprets Resource Management Act - especially the clauses on neighbours’ approval;
- council could re-look at the perceived current emphasis of the right of the developer to use the property as opposed to the cumulative effects on the wider community;
- need to assess amenity value a) private and b) public.

3. How can we maintain and enhance urban vegetation in North Shore City in the context of urban growth?

- adequate personnel and expertise in-house ie employed by council;
- guidelines for removal and retention of vegetation on building sites eg Waitakere pole houses in the trees;
- more controls on large developments to retain more trees;
- if the problem is the transfer between the developer and the builder - maybe council by means of a levy could plant the trees at time of building;
- subdivision standards through our proposed district plan that promote environmentally sensitive subdivisions that enhance urban vegetation;
- purchase of more parkland over and above subdivisional reserve funds;
- links need to be created policy-wise between reserves and land in private ownership;
- reward people who have their trees assessed and listed;
- planting strips in road carriageways with vegetation;
- decisions made only after intense consideration of the issues;
- need to work proactively with developers;
- plant out neighbourhood reserves;
- are we, as a people, facing up the concept of a “city” and moving away from the suburban concept of earlier years ie high density with trees in neighbourhood parks;
- more use of tree specialists when assessing impact of development on urban vegetation;
- improved coordination between all council departments involved with planning resource consents, subdivisions;
- at consent stage more input is needed from vegetation experts;
- use of independent arborists to assess applications for removal of vegetation.

4. What can be done to improve the understanding of the importance of urban vegetation by the wider community, particularly the development community?

- protective barriers around vegetation during development;
- more educational brochures;
- tree week - hug a tree;
- workshops;
- educate the children;
- basically education of council and the public and an example set by council in dealing with the public and developers;
- innovative developments by developers;
- development of consistent and practicable rules eg only one unit per site to put developers off;
- need ability to control;
- need to ensure that we do have a problem that does require a rule;
- enforcement should be used as a short-term tool;
- developers need confidence in council’s standards and requirements;
- give trees an equal status to other standards imposed;
- cases where prosecution is used have reinforced the district plan requirements;
- improve level of performance bonds - make these more than cost of actual work;
- appoint monitoring officer(s);

- Council could lead by example (eg Waitakere City).

5. What opportunities are there to improve monitoring of the state of urban vegetation? (eg partnerships between the council and the community)

- tree wardens to represent a locality;
- use of survey methodology - aerial photography preferred;
- interpretation and use of information needs to be emphasised rather than just collection of data;
- need for more expertise in flora and fauna - more human resources in particular;
- city-wide assessment needed;
- need to establish a decent baseline to compare one application with others. Baseline allows you not to deal with applications in isolation;
- encourage reporting by neighbourhood groups and individuals;
- take notice of neighbours/general community;
- encourage active participation by community in reserve care and monitoring;
- strengthen lines of communication with council.

6. Other

Methodology for implementation

- a policy statement by council saying where it's going and what it's doing;
- monitoring group to monitor the council and community actions;
- obtain public response to the draft report;
- trees offer more than an amenity- value of ecosystems services needs to be stressed.

Burning Issues

- should we adopt the use of social plans eg in New South Wales;
- reserve acquisition strategy - should we be putting greater values on land in certain areas where ecosystem values are higher or in areas where we have people living in high density situations in greenfields areas;
- how do we in the community know if council is observing its own planning rules and policies. Transparency needed in environmental issues as well as finance issues;
- hacking of street trees by utility companies.