

# REPORT



**TO** Strategic Management  
**ON** 19, 20 April 2005  
**FROM** Senior Environmental Policy Advisor  
**SUBJECT** North Shore Ecological Study

## Summary

The North Shore Ecological Study is the result of five years of research, field surveying and reporting. The study is the first comprehensive citywide analysis of ecological values prepared by this Council. The study reveals the links of our city's natural environment to the past, identifies the locations of rare and endangered species and habitat types and identifies and considers the threats posed to these values.

The study contains information that is likely to be of value to projects within Council and within the community. In order to assist environmental groups and landowners with initiatives to protect ecological values it is considered important to consult with interested parties on the uses that this information could be put to. Examples of this may include assisting with the preparation of grant applications, identification of more effective use of landowner/community group resources or identification of improvements that could be made to the overall way in which Council looks to maintain and enhance ecological values.

## Recommendation

1. That the North Shore Ecological Study be received.
2. That community consultation be undertaken to discuss the uses of the study.

## Links to, and consistency with:

Policy	Description of link and the consistency or inconsistency	Reference
(a) <b>Strategic Plan:</b>	A unique and valued natural environment. Promote environmental awareness, responsibility and conservation.	Pages 17, 26
(b) <b>City Blueprint:</b>	City Blueprint objective for 2020: enhanced natural environment and biodiversity. Listed as Project number 13 in the City Blueprint Action Plan.	Page 22, page 6 of Action Plan
(c) <b>City Plan / Annual Plan:</b>	Setting and monitoring environmental goals for the city. Working with other councils in the Auckland region on	Module 5 page 25

	regional issues and solutions.	
<b>(d) District Plan:</b>	'To protect and enhance significant habitats of native fauna and flora to maintain biodiversity...'	Section 8.3.2 Ecosystems page 9 section 8
<b>(e) Other council strategies/plans:</b>	Provides knowledge and understanding for the Council's Environmental Education Strategy.	Page 7 of Environmental Education Strategy
<b>(f) Council Policy Manual:</b>	Nil	

<b>Significance:</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>(a) Impact [implication × how many people affected]</b>		Study identifies ecological values throughout the city on public and private land	
<b>(b) History of public interest</b>		Environmental groups have been awaiting the completion of this study.	
<b>(c) Impact on the council budget or capacity</b>		Budgeted project	
<b>(d) Describe any alteration of service levels of any council <u>significant activity</u></b>	Nil		
<b>(e) Describe any impact on any council <u>strategic assets</u></b>	Nil		
<b>(f) Does this decision involve changing the way in which a <u>significant activity</u> is delivered?</b>	No		
<b>(g) If this is a <u>significant decision</u>, how does it take account of the relationship of Māori to ancestral land, water, sites, waahi tapu, valued flora and fauna, and other taonga?</b>	N/A		

<b>Community views</b>	
<b>(a) What information does the council have on community views on this matter?</b>	Broad understanding through consultation on Strategic Plan and City Blueprint that natural environment is to be valued and that the city is to recognise wider environmental concerns.

<b>(b) What communication and/or consultation has been undertaken?</b>	As above
<b>(c) What consideration has been given to community views on this matter?</b>	As above and community views are recommended to be further identified in relation to the uses for the studies information.
<b>(d) Further consultation is required</b>	

### Background

North Shore City lies predominantly within the Tamaki Ecological District with the upper Long Bay and Okura catchments part of the adjoining Rodney Ecological District. The Tamaki Ecological District is centred on the Auckland isthmus with North Shore City making up 21% of the total area of this ecological district. Our city however contains almost half of all the indigenous vegetation in the ecological district centred predominantly along the western and northern escarpments.

The study was commenced following recommendations from the Parliamentary Commissioner for the Environment whose 1998 report on "The Management of Urban Vegetation in North Shore City" recommended: "...that North Shore City Council augment previous evaluations by undertaking a detailed survey and assessment of urban vegetation and biodiversity (e.g. using the methodology for assessing protected natural areas)."

The City Blueprint Action Plan accepted the need for such a study for the contribution that it could make to a wide range of Councils activities. By understanding the relative ecological values across the city Council is able to better understand the impacts of its activities and policy making. Listed as project number 13 within the Action Plan there was an expectation that the identification of sites of ecological significance would lead to an analysis of the best use for such information.

The study is the result of a collaborative effort between the Environmental Policy and Planning department of North Shore City Council and the Natural Heritage department of the Auckland Regional Council. Copies of the completed study are available for Committee members.

### Summary of findings

The indigenous vegetation cover of the Tamaki Ecological District as a whole has been significantly reduced from its former extent, with much of the remaining native vegetation lying within the North Shore section. Only 6.9% of the total land cover of the ecological district now remains in native vegetation cover, while 16% of the land cover of North Shore City remains in native vegetation.

A total of 2152ha of indigenous vegetation has been mapped as part of this survey, a majority of which are forest with lesser areas of scrubland, estuarine communities and freshwater wetlands. The North Shore City contains the largest areas of continuous indigenous vegetation remaining in the Tamaki Ecological District being the Lucas Creek escarpment (295.1ha) and Kauri Park (200 ha).

The main areas of native vegetation occur in the Albany-Lucas Creek area, the escarpments of the Upper Waitemata Harbour Creeks, around the southwest coast of the Waitemata Harbour, and in the steep gullies of Birkenhead, Birkdale and Northcote. Very few areas of vegetation remain within the East Coast Bays and in the Takapuna and Devonport areas of the city. The Albany-Lucas Creek area contains a significant corridor of vegetation comprising interconnected forest patches that total an area of 706ha.

Kauri forest was once the most characteristic vegetation type present on the North Shore. Mature kauri was found in four locations including Kauri Glen, Kauri Park, Paremoremo Reserve and Chatswood Reserve. At present, young regenerating kauri and tanekaha forest is the most common vegetation type in the city, covering 375ha. Also present are forests of kauri and hard beech that reflect the movement of forest species during climatic fluctuations which are unusual. Hard Beech

moved north during the ice ages and has since survived in the cooler gullies in the north including Hellyers Creek, Chatswood, Lucas Creek escarpment, Paremoremo Reserve and Kauri Park. An extensive broadleaved forest of puriri, mangleo, karaka, kohekohe, ngaio, titoki and pohutukawa once occupied the volcanic tuff crater soils associated with Lake Pupuke, Onepoto and Tank Farm. However, only four remnants of this broadleaved forest now remain.

Freshwater wetlands such as raupo swamp and swamp maire have been significantly reduced from their former extent in North Shore City. Soldiers Bay contains the only area of wetland with intact vegetation sequences from estuarine to freshwater and to terrestrial forest, remaining in Tamaki Ecological District. This has been recognised as being of regional ecological significance in the Auckland Regional Policy Statement.

Pohutukawa forest would have once been extensive in the coastal areas of the North Shore and the Auckland region. It has now been reduced to fragments and narrow strips around the coast, often only one tree wide. While 83ha of pohutukawa forest has been mapped, it is made up of over 80 fragments. North Shore City also contains the only remaining intact dune system in the ecological district, which is being restored and replanted at Long Bay Regional Park.

Tank Farm, Shoal Bay and the Upper Waitemata Harbour creeks contain significant areas of mangroves and saltmarsh communities. Shoal Bay to Ngataranga Bay contains extensive areas of shellbanks, mangroves and saltmarsh communities of regional and national ecological significance. The shellbank communities are used as a high tide roost by wading birds and a variety of coastal bird species and it is a nesting area for the threatened NZ dotterel.

The nationally threatened king fern and the regionally threatened *Astelia grandis* were recorded during the survey while a number of regionally uncommon species were also observed as part of this survey including swamp maire and hard beech. Of note were a number of other plant species that are no longer common in the Tamaki Ecological District including pukatea, mairehau, ramarama, matai, kawaka, mangleo, *Pittosporum umbellatum*, *Corokia buddleioides* and various fern species. The Department of Conservation have identified 29 nationally or regionally threatened species as being recorded on the North Shore.

### Statutory Context

The uniqueness of much of New Zealand's indigenous biodiversity means it cannot be conserved in nature elsewhere in the world. New Zealand has an international responsibility to meet commitments under the United Nations Convention on Biological Diversity. Ratified by New Zealand in 1993 the convention requires signatory nations to prepare national strategies or plans to set national goals to conserve and sustainably use biodiversity.

In a national context the New Zealand Biodiversity Strategy 2000 established a strategic framework to conserve and sustainably use New Zealand's biodiversity. The Strategy establishes four goals being to enhance community action to conserve and sustainably use biodiversity, protect Maori interest in indigenous biodiversity, halt the decline of New Zealand's biodiversity and maintain the genetic resources of introduced species.

Within the Resource Management Act 1991 (RMA) Section 6(c) states that the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna is a matter of national importance. The functions for managing the effects of activities on biodiversity is shared between regional and district councils through sections 30 and 31 of the Act.

While New Zealand has set national priorities and targets, biodiversity exists locally. It is our local management effort that will determine successful outcomes. The challenge regionally and locally is to translate national priorities and targets into effective regulatory and non-regulatory programmes including promoting the effective participation of communities.

Regulatory responses have been developed at the Auckland Regional Council (ARC) level through the Auckland Regional Policy Statement and the Auckland Regional Pest Management Strategy. Through the North Shore City District Plan a wide range of activities that affect biodiversity values are managed. Siteworks within Sites of Significant Wildlife Interest, close to watercourses or the coast

are controlled as are siteworks altering flood plains or over 300sqm in area. Tree or bush removal is controlled for trees over size thresholds and areas of native vegetation within the Residential 2 and Rural zones. Subdivisional controls protect Eady's Bush, provide bonus provisions for covenanting bush and have specific ecological assessment criteria for subdivisions within the Residential 2 and the Rural Zones.

The completion of the North Shore Ecological study also now closes the loop of monitoring needed to support the tree protection policies in the form that was finally determined by the Environment Court in May 2002. This study supports the digitised vegetation map that measures the total extent of vegetation in the city and the telephone survey of residents that measures their satisfaction levels attributable to protected trees on their properties and neighbours properties. Accordingly, baseline monitoring information has now been established for amenity, landscape and ecological values that underpin the tree protection policies of this Council.

Future surveys will enable trend analysis to be undertaken. Results however will be dependant upon more than simply the effectiveness of District Plan provisions and compliance with approved network consents. The actual protection of ecological values is potentially most affected by the effectiveness of community action relative to existing and new biosecurity (ie noxious weeds) incursions. This is currently not monitored.

#### Council's Current Involvement in Ecological Protection

Council has adopted a broad ranging approach to protecting ecological values. From a regulatory perspective Council uses the District Plan provisions to manage the effects of activities on biodiversity. From a non-regulatory perspective Council supports through funding, co-ordination and advice Reserve Management Committees, Wai Care groups, Enviro schools, KERP as well as a number of other community groups. Council's Parks and Environment department also actively protect biodiversity within our reserves network.

Council sponsors and/or provides a co-ordination role for a number of community based groups and schools that undertake ecological protection programmes. The Wai Care programme where groups adopt a stream for monitoring and/or planting is being undertaken in relation to 14 streams within the city. Testing results are posted on [www.waicare.org.nz](http://www.waicare.org.nz) and are used by Council's Water Services for monitoring purposes. Where weed removal and replanting is undertaken Council assists the Wai Care groups by offering expert advice and native trees from the Parks Volunteer budget. Council also looks to raise the community awareness through the 'Caring for our Trees and Bush' booklet. 15000 of these booklets have been distributed through garden centres and Council offices. The booklet guides landowners as to how to select what to plant, how to care for trees and bush and how to get in contact with community groups actively involved in ecological protection.

Council's Parks and Environment department undertake both active management and offer assistance to community groups working within reserves. Active management involves undertaking noxious weed control within reserves, sourcing plants and undertaking revegetation projects. Assistance is offered to community groups through the co-ordination functions of the Citywide Parks Officer. Community groups working within reserves are management committees, friends of reserves, Wai Care groups, Enviro schools and some corporate volunteers. These groups also receive indirect funding assistance through City Plan and Community Board discretionary funds.

#### Regional Initiatives to Protect Ecological Values

At a regional level the ARC provides a contestable Environmental Initiatives fund. This totalled approximately \$200,000 last financial year. The fund provides grants to volunteer groups and individuals to assist the completion of projects that maintain or enhance the natural environment. Assistance is given for up to 50% of the total cost of the particular project. During the last round of grants the following grants were awarded to groups within our city;

<b>group</b>	<b>funding</b>	<b>activity</b>
Friends of Sherwood Trust	\$3143	Restoration and creation of a native plant nursery
St Leo's Primary School	\$2660	Native planting programme

Lake house arts centre	\$745	Native planting
Friends of three streams	\$1205	Environmental education programme
Onepoto Primary School	\$1000	Creation of native plant garden

The ARC also directly manages biodiversity through its regional parks network, the Auckland Regional Pest Management Strategy (ARPMS) and campaigns such as the current 'plant a native tree' campaign and the 'trees for survival'. The regional parks network facilitates volunteers to become active in the community by offering planting days and training courses. An example of this is the 'mainland island' being created at Tawharanui as an open sanctuary. By completing a predator proof fence to keep all possums, stoats, rats and mice out of a peninsula area it is hoped that biodiversity values can be reintroduced and maintained at this mainland location.

The ARPMS provides a framework for the ARC Biosecurity Team to meet its statutory obligations under the Biosecurity Act 1993. The Biosecurity Team at the ARC publish information leaflets on plant and animal pests and also undertake site inspections. Most site inspections are complaint driven with complainants normally complaining about a neighbours weeds. Where the weeds are 'total control plant pests' the biosecurity officer will advise the property owner of their obligations to eradicate the weed under the Biosecurity Act. A follow up inspection is then made to ensure compliance.

To provide an example of the scale of the weed infestation within our city relative to the scale of operations undertaken by the ARC Biosecurity Team there were over 6000 areas of plant pests identified within our city by the digitised vegetation map affecting over 20,000 individual sites. Comparatively, across the whole Auckland region only 600 complaints were made to the ARC about plant pests during the 2002 – 2003 financial year. Invasive plant pests have pervaded most areas of bush within our city well beyond the complaint driven response ability of the ARC.

The 'plant a native tree' campaign has provided free native trees to lunch time shoppers around the region and offers discounts for the purchase of native trees from one nursery chain. The 'trees for survival' campaign is funded by Rotary and supported in the Auckland region by the ARC. This programme assists schools in growing and planting native trees to help reduce soil erosion. The 'big clean up' campaign provides households with a kit of information ranging from home composting to choosing environmentally friendly products to joining in planting days.

#### Where to from here

With the completion of this ecological study Council is now in the position of holding information that will be of value to a number of different people and organisations. The information may be able to be used to attract funding for environmental initiatives, direct environmental restoration to where it is needed most and to assist with identifying effects of development proposals. It is considered important to consult with interested parties to identify the best uses for this information and how it relates to current and future Council initiatives.

In line with Council's responsibilities under Section 32 of the Resource Management Act a report will need to be prepared on the most appropriate use for this information now held. It was originally expected that the study would lead to a District Plan change however there may be other options that enable Council to more effectively carry out its functions in relation to the protection of ecological values.

	<b>Name and title of signatories</b>	<b>Signature</b>
<b>Prepared by</b>	Phill Reid Senior Environmental Policy Advisor	
<b>Prepared by</b>	Rachael Johnson Environmental Policy Advisor	
	<p><b><u>Confirmation of statutory compliance</u></b> In accordance with section 76 of the Local Government Act 2002, this report is approved as:</p> <p>(a) containing sufficient information about the options and their benefits and costs, bearing in mind the significance of the decisions; and,</p> <p>(b) is based on adequate knowledge about, and adequate consideration of, the views and preferences of affected and interested parties bearing in mind the significance of the decision.</p>	
<b>Approved by</b>	Trevor Mackie Manager Environmental Policy and Planning	
<b>Approved by</b>	Ann Prendergast General Manager Strategy and Policy	

Date: 7 April 2005