



CONSERVATION
STRATEGY

2004

Waikato District Conservation Strategy

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1 Introduction

Under the Resource Management Act 1991 it is a matter of national importance to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna. The New Zealand Biodiversity Strategy (2000) clarifies what this protection involves and what all sectors of the community, including Councils, need to do to achieve this outcome. Further clarification is given in Waikato Regional Council's¹ Regional Policy Statement (2000).

The Waikato District Conservation Strategy presents the way in which this Council will undertake its responsibilities for managing biodiversity. The focus here is on implementation – clarifying what the Council will do to play its part in achieving the national and regional targets that have been defined.



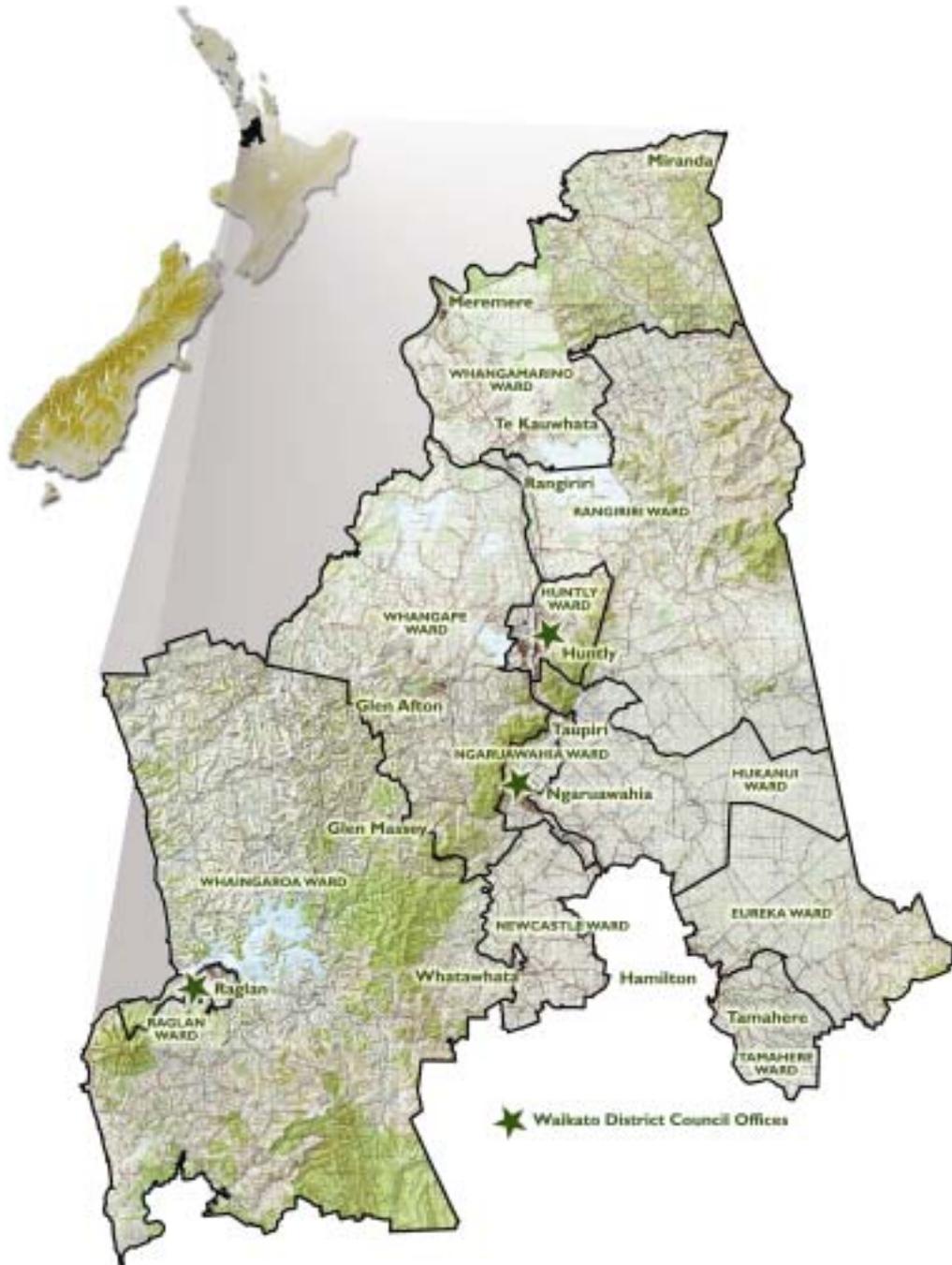
Figure 1: Tui are present in the Waikato. Vegetation planting programmes aim to promote population growth and migration. (Photograph: N B Fitzgerald, Landcare Research)

Sections 3 and 4 of this strategy are quoted directly in the Proposed Waikato District Plan (2004). Other aspects of this strategy are incorporated into the long-term council community plan. That is, the strategy is a non-statutory companion document to these two statutory plans that presents details on how the Council will implement its policies.

¹ Waikato Regional Council is also known as Environment Waikato.

The Council's overall goal is to make the District (Figure 2) a more desirable place to live in, invest in and visit. A healthy natural environment is an essential part of this.

Figure 2: The Waikato District Council area.



2 Vision and Goals

National and regional biodiversity targets have been set. The Council is committed to helping achieve these targets by working in partnership with landowners, iwi, the community, other agencies and interest groups.

These targets are perhaps best summarised in the vision and goals of the New Zealand Biodiversity Strategy (Figure 2.) The vision and goals are geared towards “turning the tide” and stopping the loss of species by the year 2020.

<p>Vision</p> <ul style="list-style-type: none">○ New Zealanders value and better understand biodiversity;○ We all work together to protect, sustain and restore our biodiversity, and enjoy and share its benefits, as the foundation of a sustainable economy and society;○ Iwi and hapu as kaitiaki are active partners in managing biodiversity;○ The full range of New Zealand’s indigenous ecosystems and species thrive from the mountains to the ocean depths; and○ The genetic resources of our important introduced species are secure, and in turn support our indigenous biodiversity.
<p>Goal 1: Community and individual action, responsibility and benefits</p> <p>Enhance community and individual understanding about biodiversity, and inform, motivate and support widespread and coordinated community action to conserve and sustainably use biodiversity; and</p> <p>Enable communities and individuals to equitably share responsibility for, and benefits from, conserving and sustainably using New Zealand’s biodiversity, including the benefits from the use of indigenous genetic resources.</p> <p>Goal 2: Treaty of Waitangi</p> <p>Actively protect iwi and hapu interests in indigenous biodiversity, and build and strengthen partnerships between government agencies and iwi and hapu in conserving and sustainably using indigenous biodiversity.</p> <p>Goal 3: Halt the decline in New Zealand’s indigenous biodiversity</p> <p>Maintain and restore a full range of remaining natural habitats and ecosystems to a healthy functioning state, enhance critically scarce habitats, and sustain the more modified ecosystems in production and urban environments, and do what else is necessary to</p> <p>Maintain and restore viable populations of all indigenous species and subspecies across their natural range and maintain their genetic diversity.</p>

Figure 3: The vision and goals of the New Zealand Biodiversity Strategy²

² A fourth national goal relates to genetic resources of introduced species. It is not relevant to Waikato District Council activities and therefore is not presented here.

3 Issue, Objective and Policies

This section is included in the District Plan and hence follows the Plan's format.

3.1 Introduction

Large areas of forest and wetland once covered the district. The dominant forest species were typically kauri in the north, podocarp in central areas and a combination of rimu and tawa in the south. Variations were seen between coastal and inland areas. The major wetland areas were northeast of Hamilton and around the lower Waikato River. Indigenous lowland vegetation was modified by Maori and then largely replaced with exotic pasture by Europeans to establish the district's social and economic foundation. Today, little deliberate felling of indigenous forest takes place and the main threats to forests are stock browsing and plant and animal pest infestation. Drainage continues to pose a threat to wetlands.



Figure 4: The Hakarimata Range and Taupiri Range are part of the semi-continuous habitat corridor from Miranda to Aotea Harbour. The Waikato and Waipa Rivers are also important habitats. (Photograph: Geosmart)

Large areas of rimu and tawa forest remain on the hill country and most of it is in publicly owned and legally protected. Most of the internationally recognised Whangamarino Wetland is also legally protected. These areas and the lower Waikato lakes together form a semi-continuous band of indigenous habitats from the north-east (Miranda) to the south-west (Aotea Harbour). Outside of this band, indigenous vegetation and habitats have been significantly depleted and in some cases only small remnants remain. Few of these remnants are formally protected.

The major aquatic features are the Waikato and Waipa rivers, the lower Waikato lakes, peat lakes near Hamilton, and the Raglan (Whaingaroa) and Aotea harbours. Reports by Leathwick et al (1995), Clarkson and Wallace (2004) and the Waikato Regional Council (1998) provide further information on indigenous habitats.



Figure 5: Kahikatea forest remnants are scattered across lowland parts of the District (Photograph: B Burns, Landcare Research)

The Waikato District Conservation Strategy (2004) presents the council's approach to fulfilling its Resource Management Act obligations and to implementing the New Zealand Biodiversity Strategy at the local level. Emphasis is placed on a lead by example approach by incorporating environmental objectives into the council's service delivery functions, improving biodiversity on council-owned land through restoration and maintenance works, and improving biodiversity on private land through education and incentives.

The council will seek to work in partnership with landowners, interest groups and other agencies to further investigate significant indigenous habitats with a view to reconsidering priorities and management methods. Information available to assist with this work includes an indigenous vegetation cover database, the Land Environments New Zealand database and geological information showing areas where mining (resulting in vegetation clearance) could potentially occur.

Regulations are limited to circumstances where there is an economic incentive for landowners to fell indigenous forest and the council is unable to provide a greater economic incentive to have the forest retained through making additional subdivision entitlements available. There are no regulations in relation to wetland drainage because the Waikato Regional Council (Environment Waikato) regulates these matters.

3.2 Issue – Biodiversity, ecosystems and habitats

Land use and development can result in the loss and degradation of ecosystems and habitats, fragmentation and isolation of habitats, and a reduction of species abundance and biodiversity.

Objective

Indigenous biodiversity and the life-supporting capacity of indigenous ecosystems are maintained and enhanced

Policies

1. Areas of indigenous vegetation and habitats of indigenous fauna, and the life-supporting capacity of indigenous ecosystems should be enhanced through on-site works, and the creation of ecological buffers and linkages using eco-sourced plants.
2. Priority should be given to protecting and restoring threatened habitats such as coastal and lowland forest, riparian areas, wetlands, dunes and peatlands.
3. Subdivision, use and development should be designed to avoid adverse effects on biodiversity including in-stream values, riparian margins and gullies.
4. Areas of significant indigenous vegetation and significant habitats of indigenous fauna should be managed in a way that protects their long-term ecological functioning and biodiversity through such means as:
 - Excluding stock
 - Undertaking plant and animal pest control
 - Retaining and enhancing vegetation cover
 - Maintaining wetland hydrology
 - Avoiding physical and legal fragmentation.
5. Adverse effects of subdivision, use and development on the ecological functioning and values of significant indigenous vegetation and significant habitats of indigenous fauna should be avoided.
6. Where adverse effects on the ecological functioning and values of significant indigenous vegetation cannot be avoided they should be remedied or mitigated to maintain and enhance overall ecosystem functioning. Regard should be had to
 - The need of species to continue to have access to their required range of food sources and habitats during their life cycle
 - The need of species for access to refuges from predators and disturbances
 - The maintenance of natural isolation
 - The need to prevent invasion by exotic species
 - The need to maintain vegetation structure, such as a continuous closed-forest canopy and under-storey, and compactness of an area's shape to limit edge effects such as wind damage.
 - The need to replace or restore habitats
 - Retaining and restoring the natural character and landscape values of the area.
7. The indigenous vegetation and habitats within the Landscape Policy Area, Conservation Policy Area, and the coastal environment should be protected from inappropriate subdivision, use and development.

3.3 Reasons and Explanations

Objective

Sustainable management includes safeguarding the life-supporting capacity of ecosystems, and it is a matter of national importance to recognise and provide for the protection of significant indigenous vegetation and significant habitats of indigenous fauna. Also refer to the New Zealand Biodiversity Strategy (2000.)

Enhancement Works

Enhancement works have an important role in maintaining and restoring biodiversity, particularly for highly threatened habitat types, small remnants of all habitat types and in providing linkages between sites. Linkages can play a vital role in maintaining biodiversity.

Priority Areas

Habitat loss has been greatest in lowland areas. For many habitat types only small remnants remain and some have been lost completely. Furthermore these habitat types are under-represented in the network of legally protected areas and face the greatest threat of further loss. These habitats warrant greater management effort than habitat types which make up large areas of the public estate.

In-stream Values

Land use intensification can affect in-stream values through changing runoff characteristics and vegetation disturbance. Subdivision and development should take account of in-stream values and protect these values as much as possible.

Significant Areas

Significant habitats play a vital role in maintaining the District's biodiversity and therefore warrant protective management. Various methods are used to promote this protection.

Adverse Effects

The range and extent of indigenous habitats has been severely reduced in most parts of the District and only small remnants of some habitat types remain. Maintaining the significant values of an area depends on its ecological processes continuing to occur. Disturbances to indigenous habitat areas and the fauna associated with them should be avoided wherever possible. Use and development of these areas is not precluded, but where adverse effects occur they should be remedied or mitigated at that site or offset by conservation at another site of similar ecosystem type. See Section 3.11.4 of the Waikato Regional Policy Statement.

Regulations

Indigenous habitats that face identifiable threats of clearance through land use changes should be given regulatory protection to ensure biodiversity values are fully considered whenever land use changes are being contemplated. Identifiable threats include clearance for building development in coastal areas and clearance for peat, sand, rock and mineral extraction.

3.4 Anticipated Environmental Results

Issue	Anticipated Environmental Results
Biodiversity, ecosystems and habitats	<ul style="list-style-type: none"> (a) Protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. (b) Enhancement, maintenance or creation of linkages between ecological areas in the district or along the margins of lakes, rivers and the coastline, including: <ul style="list-style-type: none"> ▪ indigenous forest on hill country from Pirongia to Miranda ▪ Waikato and Waipa Rivers, and associated wetlands ▪ Horsham Downs lakes and Lake Rotokauri ▪ Raglan Harbour (Whaingaroa), Aotea Harbour and their tributaries. (c) Improved ecosystem health, functionality and biodiversity of species representative of the original habitat types in the district. (d) Restoration of lowland habitats particularly riparian areas of lakes, rivers and wetlands, and coastal and lowland forests. (e) Avoidance or mitigation of land uses or developments resulting in removing or modifying indigenous vegetation or habitats.

3.5 Monitoring

The indicators tabulated below are identified in the Council's Integrated Monitoring Strategy (Waikato District Council 2004.)

Monitoring methodology will be reviewed following completion of research work into integrated biodiversity monitoring done in conjunction with the University of Waikato. The research will develop methods of assessing the current state of biodiversity and trends. The results will be used to reassess management priorities.

Ecological functioning of an area will be assessed with reference to whether:

- Forest remnants are well enough linked to enable bird migration and plant pollination to occur
- Indigenous wildlife thrives in these areas and migrates out into new areas or is successfully reintroduced to areas
- Populations of indigenous species are self-sustaining
- Pests are not causing significant damage
- Indigenous and trout fisheries are productive and sustainable.

Indicators	<p>(a) Number, area and distribution of significant indigenous vegetation and significant habitats of indigenous fauna protected by:</p> <ul style="list-style-type: none"> • Conservation covenants (with Council or QEII National Trust) • Reserve status (Council or DOC reserves) <p>(b) Area by ecological type protected: Indigenous forest, natural wetlands, river and lake margins, coastal margins, peat bog vegetation.</p> <p>(c) Condition of the habitats protected by covenants by:</p> <ul style="list-style-type: none"> ▪ Number and area of covenants with stock-proof fences ▪ Number and area of sites where weeds and animal pests are controlled <p>(d) Number, area and location of significant ecological areas in private ownership identified on planning maps</p> <p>(e) Condition of the privately owned indigenous vegetation and habitats: Canopy, Understorey, Vegetation type, Wildlife species, Stock-free area, Weed-free area, Pest-free area.</p> <p>(f) Number and area of indigenous vegetation, habitats or wetlands removed or modified.</p> <p>(g) Number, location and type of resource consents granted for land use and developments that will result in indigenous vegetation removal or modification of wetlands</p> <p>(h) Number, type and frequency of complaints relating to land use developments resulting in removal or modification to indigenous vegetation and habitats.</p> <p>(i) Number of landowners who have indigenous biodiversity on their property.</p> <p>(j) Number of ecological sites managed by a landowner or community groups.</p> <p>(k) Total fund, number and size of grants made annually, identified by recipient, from the Conservation Fund.</p> <p>(l) % of people aware of:</p> <ul style="list-style-type: none"> • District Plan provisions relating to indigenous vegetation and habitat • Conservation funding availability and criteria • Supportive of Council spending in relation to ecological areas. <p>(m) Number of ecological areas fenced to prevent grazing.</p> <p>(n) Number of ecological areas where weeds and animal pests are controlled by: EW, WDC, DOC or Private Landowner</p> <p>(o) Area and location of revegetation or enhancement programme for ecological restoration between ecological areas or along lakes, rivers or coastal margins.</p> <p>(p) Number, area and location of esplanade reserves created and restored between significant ecological areas and along rivers, lakes and coastal margins.</p> <p>(q) Number of community environmental groups participating in ecological restoration.</p>
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4 Implementation Methods

The Council will play its part in achieving the above outcomes by being committed to “being in it for the long haul” and through

1. Leading by example by undertaking its service delivery works and managing its land in a way that maintains and enhances biodiversity. The main emphasis will be upon restoring lowland habitats such as gullies, wetlands, lakes, and the coast where they are in Council ownership using eco-sourced plants.



Figure 6: The Aro Aro wetland in Raglan is to be enhanced through weed removal, drain management changes and planting. (Photograph: G Kessels)

2. Recognising that long-term success depends on establishing a positive relationship with landowners and the wider community, and hence
 - (a) Promoting a conservation ethic through consultation, education, recognition and reward.
 - (b) Recognising the rights and needs of people.
 - (c) Providing information and incentives to encourage and assist landowners and community groups to protect and restore areas.
3. Working in partnership with landowners, iwi, the community, other agencies and interest groups on a series of well-defined and achievable priority projects that together achieve the big picture.



Figure 7: The community has helped with planting on the Lake Kainui reserve.

4. Introducing regulatory controls only where they can be clearly shown to be necessary for, and effective in, protecting biodiversity and sustaining ecological functioning.
5. Gathering further information to reassess priority sites and whether the right balance of management methods is being used. Investigations may include
 - (a) Using a Land Environments New Zealand (LENZ) analysis, in conjunction with field investigations on biodiversity condition and trends, to assess the representativeness and rarity of indigenous vegetation;
 - (b) The location and extent of indigenous vegetation clearance to examine the need for more regulatory controls;
 - (c) The relative significance of indigenous vegetation and habitats to identify the most significant areas and in conjunction with landowners, interest groups and other agencies determine the most appropriate methods of protecting and restoring these areas.
 - (d) Working with research agencies to develop an integrated monitoring strategy that will enable biodiversity condition and trends to be assessed.

Details of strategy implementation for 2004 – 2006 are presented in Appendix 1.

These methods shall be included in the District Plan as presented below.

Regulatory Methods (Refer also to Section 5.3.3 below)

- (a) Rules to control clearance of indigenous vegetation and habitats within the Landscape Policy Area, Conservation Policy Area, and the coastal environment, where there may be an economic incentive for clearance to occur and there are insufficient economic incentives to ensure the vegetation and habitats are retained.
- (b) Rules to control indigenous vegetation clearance in gullies in the Country Living Zone.
- (c) Subdivision incentives for protecting areas by covenant.
- (d) Esplanade reserves created adjacent to water bodies and the coast to meet the purposes of section 229 of the Resource Management Act.
- (e) Rules to control subdivision and development to protect in-stream values.



Figure 8: The Council has entered into conservation covenants with about 70 landowners to protect indigenous forest.

Other Statutory Plans and Documents

- (a) New Zealand Coastal Policy Statement
- (b) Waikato Regional Policy Statement
- (c) Waikato Regional Plan
- (d) Waikato Regional Pest Management Strategy
- (e) Waikato District Long-term Council Community Plan
- (f) Waikato District Conservation Strategy
- (g) Waikato District Esplanade Strategy
- (h) Reserve Management Plans
- (i) Waikato Conservancy Conservation Management Strategy (Department of Conservation).

Council Works and Services

- (a) Council-owned land will be managed to enhance biodiversity values through restoration planting programmes and pest control, particularly on lowland areas such as esplanade reserves.
- (b) Biodiversity objectives will be incorporated into service delivery activities such as ensuring fish passage through culverts in natural water courses and carrying out works in accordance with best practice guidelines.
- (c) Service delivery and consents staff will be trained on biodiversity.



Figure 9: The Council is working in conjunction with a community group to enhance Lake Hakanoa in Huntly. (Photograph: Geosmart)

Information, Education and Advocacy

- (a) Assist in the distribution of pamphlets and other education material produced by other agencies, in conjunction with articles in council publications and displays in council offices and libraries.
- (b) Support such things as EnviroSchools programmes, community-based projects and independent information, coordination and advisory services.
- (c) Promote the establishment of agreements and covenants on private land and develop an ongoing partnership with these landowners to ensure natural values are protected through appropriate management.
- (d) Initiate community-based workshops and projects where significant biodiversity benefits may be gained, particularly in relation to council land or service delivery.
- (e) In conjunction with other agencies and interest groups, investigate recent patterns and extent of forest clearance and assess the need for additional regulatory controls.
- (f) In conjunction with other agencies and interest groups, investigate the relative significance of indigenous habitats then assess priorities and the most appropriate management methods for these sites in consultation with the landowners, other agencies and interest groups.
- (g) Participate in community and inter-agency forums.
- (h) Support research into biodiversity management and protection.
- (i) Support and promote environment awards.

Economic Instruments

- (a) Financial assistance to landowners implementing measures to improve biodiversity on private land and to community conservation groups, which will be made available through a contestable fund.
- (b) Rate remission in accordance with the long-term council community plan.

Reasons for Methods

Regulatory Methods

Landowners generally value indigenous vegetation and habitat areas on their properties and appear to have no intention to adversely affect them unless there is an economic incentive to do so. Such an incentive can arise through the landowner adopting an alternative land use such as mining coal, rock, sand or peat, or subdivision and housing development in the coastal environment. The council is introducing regulatory controls within Conservation Policy Areas, defined as areas of indigenous vegetation adjacent to active mining areas, and in the coastal environment to ensure that the effects on biodiversity are recognised and provided for through the consent process.

District plan rules allowing subdivision in return for legal protection of natural areas is an effective regulatory method. Esplanade reserves have a role in retaining the values of indigenous habitats in riparian areas. Subdivision and development is regulated to ensure in-stream values are protected.

The major threats to indigenous forest are pest invasion and grazing and the council is unable to regulate against these threats. Wetland threats include drainage and vegetation clearance and the Waikato Regional Council regulates these activities.

Council Works and Services

The council is taking a lead by example approach to land management and service delivery. The council owns a considerable length of esplanade reserve and much of the council's biodiversity efforts will take place on these reserves. Council ownership of these areas coincides with them being priority areas for biodiversity restoration works. They are priority areas due to being in lowland areas and widespread lowland habitat destruction over many years.

Information, Education and Advocacy

Achieving conservation objectives over the long-term depends on establishing a positive relationship with landowners and the wider community. Therefore the council will:

- (a) promote a conservation ethic through consultation, education, recognition and reward
- (b) recognise the rights and needs of people
- (c) provide information and incentives to encourage and assist landowners and community groups to protect and restore areas.

National research (Parminter and Wilson 2002a, 2002b) has revealed the key reasons why landowners protect indigenous forest or wetlands. They are:

- (a) They believe family and neighbours support their efforts;
- (b) They feel it is the right thing to do for various reasons including wanting to protect native species, improving landscape values, and maintaining clean water;
- (c) They know what needs to be done;
- (d) They believe their efforts will make a difference;
- (e) They believe the benefits outweigh the costs and they are able to meet the costs. The benefits include improved marketability of the property, improved stock control and habitat improvements.

The research also revealed that unless management agency involvement results in changes in landowner attitudes then there is no long-term benefit from management agencies becoming involved. Currently, the largest threats to indigenous forests are stock browsing and pest invasion. Successfully dealing with these threats depends on having a positive relationship with landowners and increasing their understanding and concern about conservation issues and responses.

More detailed land use and habitat information will be gathered to enable further assessment of appropriate management methods for the most significant sites. This will be done in conjunction with landowners, interest groups and other agencies to foster a cooperative effort.

Other Statutory Plans and Documents

The Waikato District Conservation Strategy (2004) and the Esplanade Strategy (2000) both support the district plan in reaching its objectives in relation to indigenous vegetation and habitats. These strategies are implemented through the long-term council community plan and the district plan. The district plan must give effect to the New Zealand Coastal Policy Statement, and cannot be inconsistent with the Waikato Regional Policy Statement or the Waikato Regional Plan, which have objectives that seek to maintain or enhance biodiversity. It is therefore important that the district plan complement the objectives and policies in those documents. A number of statutes give protection to indigenous habitats and birds and animals either through the creation of reserves (the Reserves Act), management of the conservation estate (the Conservation Act), or protection to specific species (the Wildlife Act).

Economic Instruments

Economic instruments, including subdivision rights, are an effective way of encouraging landowners to retain and enhance significant habitats.

5 Priorities

5.1 Indigenous Vegetation and Habitats within Waikato District

The overall pattern of indigenous vegetation is presented in Section 3.1. Specific studies reveal details of this pattern and enable priorities to be identified.



Figure 10: The forest understorey recovers quickly following stock exclusion. (Photograph: Environment Waikato)

A LENZ analysis (Level IV) reveals that a significant proportion of the total national coverage of certain land environments is within the Waikato District. These LENZ represent priority areas for management because they are unique environments and there are few opportunities outside the District for them to be managed. Combining these LENZ with indigenous vegetation maps reveals:

LENZ (level IV)	% of national coverage within District	Area in District (hectares)	% of natural vegetation cover remaining
A4.2b	61	16	0
A5.3a	27	42,400	12.7
A5.3b	24	19,500	1.9
A6.2a	37	21,600	16.3
A6.2b	96	4,200	2.5
A7.2b	38	49,900	2.7
D2.1a	39	56,300	43.7
D2.1b	47	35,700	20.8
G3.2c	21	3,000	13.7
G3.3a	20	6,100	2.7

For instance, LENZ A6.2b (defined as rolling hills with warm temperatures, high solar radiation, low annual water deficits with low fertility and recently formed soils) has 96% of its national coverage within the Waikato District. And 2.5% of this LENZ area has indigenous vegetation on it. This information can be combined with information on legal protection (public reserves and private covenants) and land ownership to reveal the extent to which it is protected and which landowners to approach to promote protection of these remnant areas. On-site inspections will be required to confirm the ecological significance of a given site and hence its priority.

A wetland inventory (Clarkson and Wallace 2004) reveals a 79% loss of wetlands since 1840 (from 52,357 hectares to 11,085 hectares.) Remaining wetlands can be classified as follows:

Wetland Vegetation Class	Area (hectares)
Reedland	110
Sedgeland	43
Shrubland	1,941
Exotic treeland	6,152
Exotic herb-grassland	364
Restiad: Empodisma	2,475
Restiad: Sporadanthus	0

Sedgelands and reedlands cover only small areas and are a priority for protection and enhancement. For instance these habitats could be restored on esplanade reserves around lakes in conjunction with creating silt traps on drains to improve water quality. Sporadanthus, which once made up 20% of all wetlands, has been completely removed and only one site where restoration could occur is known.



Figure 11: Sedgelands are a priority for restoration and enhancement. (Photograph: K Denyer, Environment Waikato)

5.2 Council Land

Council will focus its habitat restoration efforts on Council-owned land and will determine priorities by taking into account the extent to which:

- (a) The site is or could become ecologically significant, the degree of threat to it and the likelihood of restoration success. Significance will be assessed using the criteria in Appendix 3 of the Regional Policy Statement, an assessment of wetland class and/or a LENZ analysis and its contribution to achieving the anticipated environmental results referred to in Section 4;
- (b) There is local community or other agency interest and support for restoration works;
- (c) The cost-effectiveness of working on a given site relative to other sites including both the initial and ongoing costs, the degree of threat it faces;
- (d) There is practical access to the site;
- (e) Site-specific management objectives can be clearly identified and outcomes can be measured;
- (f) Other objectives such as landscape improvements and public access improvements can be achieved at the same time.

The following is an indicative list of where works will be undertaken. Work scheduling will be determined through priority assessment and according to resource availability. The primary focus is upon restoring lowland habitats.



Figure 12: The Wainui Stream on Wainui Reserve prior to streamside planting. (Photograph: Whaingaroa Harbourcare)

1. **Esplanade reserves:** planting native species (using local genetic stock) and undertaking animal and plant pest control on margins of peat lakes, streams that have high fishery values and the coast. In alphabetical order:
 - o Lake Areare

- Lake Hakanoa
- Lake Kainui
- Lake Pikopiko, subject to gaining legal access
- Lake Rotokauri
- Raglan Harbour (Whaingaroa) and coastal dunes
- Tamahere gullies
- Waikato River banks in Huntly and Ngaruawahia
- Waikato River islands
- Waipa River banks in Ngaruawahia.

Enhancement works will also take place on other esplanade reserves where walkways are being developed.



Figure 13: The Wainui Stream after planting by Whaingaroa Harbourcare. (Photograph: Whaingaroa Harbourcare)

2. **Bush reserves:** undertaking fence maintenance, pest control (animals and plants), health monitoring
 - Taniwha Bush (120 hectares)
 - Waingaro Bush (22 hectares)
3. **Utility Reserves:** undertake pest control; investigate opportunities for enhancing ecological values such as wetland establishment. Possible sites for such works include the Huntly closed landfill site and planting at the former Hopuhopu waste water treatment plant site.
4. **Rural road reserves:** undertaking plant pest control; planting native species in “odd pockets” where it will not cause problems for the road, pedestrians or utilities.

5. **Other reserves** (especially urban): eradicating plant pests, and including native species in amenity planting programmes. Enhancing the wetland values of low-lying parts of reserves may be possible.

5.3 Council Service Delivery

1. Culverts in natural watercourses shall be installed in a manner that ensures fish passage is maintained, unless a barrier is specifically required (eg to stop koi carp migration into lakes.) Priority sites will be determined in conjunction with Environment Waikato and these will be inspected periodically in regard to fish passage. Remedial works will be undertaken where required.



Figure 14: A koi carp barrier has been installed in the Lake Kainui outlet drain to prevent migration into the lake.

2. Drainage scheme works shall be carried out according to best practice guidelines. Guidelines from Environment Waikato will be considered when they become available.
3. Service delivery staff will receive training on biodiversity values and management requirements.
4. Willow clearance works will be designed to take into account the stream ecology. Pest control and native vegetation planting will be promoted to the local community in willow control areas.



Figure 15: Rock rubble has been placed at the end of culverts so native fish can migrate past these structures.

5. Consideration shall be given to using appropriately trained work gangs to undertake major works (eg large exotic tree removal or weed control) that would otherwise be beyond the ability of landowners to do.
6. Open channels in urban areas will be retained and managed where possible to protect instream values where significant values exist. Other factors to be considered include maintaining hydraulic efficiency to a satisfactory level, public health and nuisance matters (such as dangers associated with open watercourses and undesirable species living in open water areas) and amenity values.
7. Stormwater treatment systems shall be installed where there is a sensitive receiving environment and it is demonstrated that untreated stormwater is adversely affecting it.
8. Consideration shall be given to planting native species on land rehabilitated following road works.
9. Contractors shall be required to undertake earthworks according to best practice guidelines.

5.4 Private Land

5.4.1 Education

1. The Council will assist in the promotion and distribution to landowners and community groups of pamphlets and other educational materials produced by other agencies. Distribution will be associated with articles in Council publications and displays in Council offices and libraries.
2. The Council supports Enviroschools programmes and will provide financial assistance for running these programmes on a case-by-case basis.
3. The Council supports providing administrative support for community-based conservation projects and will consider providing that support on a case-by-case basis.
4. The Council supports establishment of the National Wetland Trust Information Centre in the District.
5. The Council may initiate and facilitate community-based workshops and conservation projects where significant conservation benefits may be gained, particularly related to Council land or Council service delivery (eg drainage schemes).
6. The Council supports the ongoing operation of independent and free advisory and coordination groups such as Biodiversity Advice Waikato and the Regional Biodiversity Forum and will advocate for continuing Central Government funding. The Council will work in conjunction with these groups and will consider providing funding assistance if this becomes necessary, if reviews of the groups confirm their value and other agencies are also willing to contribute funding.
7. The Council may provide financial assistance to individuals to attend training courses.
8. The Council will help promote awards that recognise best practice, such as the environment awards, and will promote the adoption of best practices by publicising award-winning efforts.

5.4.2 Incentives

All Land Owners

1. Make rate remission available for land with significant conservation values in accordance with the policy in the long-term Council community plan. When developing the 2006 long-term Council community plan, the Council will consider providing rate remission (for the land value component of rates) on a pro rata basis for areas of significant conservation value that are protected.

2. Make additional subdivision entitlements available provided that suitable areas are permanently and legally protected. Details are provided in the District Plan.
3. Establish a fund to enable the Council to consider providing financial help to:
 - Consent applicants who are willing to voluntarily protect areas, as negotiated through the consent process (but excluding sites where additional subdivision entitlements are being obtained);
 - Landowners who seek assistance outside of the consent process;
 - Community groups who seek assistance for projects, including those involving public land;
 - Community organisations that assist landowners.

Funding assistance will normally depend on a written agreement being entered into. Where the Council contribution to a project on private property exceeds \$5,000 a conservation covenant shall be registered on the property title.

If the Council provides funds to help protect and enhance a conservation feature and that feature is subsequently used to obtain additional subdivision entitlements then the landowner will be required to refund the Council in full.

The Council will decide on the level of assistance by considering the following factors:

- (a) The ecological significance of the site, the degree of threat to it and the likelihood of restoration success;
- (b) The priority the Council is giving to the habitat type on the site as determined through an assessment of habitat types requiring the greatest assistance and the assistance for various habitat types available from other agencies;
- (c) The extent to which the benefits to private landowners is matched or exceeded by wider community and ecological benefits (eg through connecting isolated habitat areas);
- (d) Landowner willingness including the degree of long-term commitment and the existence of any legal mechanism securing that commitment;
- (e) The long-term financial implications of managing the site properly;
- (f) The degree of biodiversity improvement relative to the financial commitment required;
- (g) The extent of community involvement in the project;
- (h) The assistance available from other sources.

NOTES:

1. Ecological significance will be assessed using one or more of the following tools: Appendix 3 of the Regional Policy Statement; the LENZ spatial framework; wetland vegetation class. The assessment shall be made in relation to the anticipated environmental results listed in Section 4.
2. In general, the Council is giving priority to assisting landowners with lowland habitats that are most threatened, as described in Section 5.1.
3. The Council has been the covenanting agency to date. In future it will promote the QEII National Trust as the covenanting agency where the area to be protected meets the criteria of that agency.

Covenant Holders

The Council will assist landowners who enter into conservation covenants with the Council as follows (refer to Kessels and Riddell, 2003):

1. Appoint one key staff member to be responsible for ongoing covenant management and monitoring.
2. Make regular written contact with covenant holders specifically focusing on covenants and "success" stories, as well as providing useful management tips and contacts.
3. Visit and monitor every covenant approximately once every two years and store information on a database. This may be done in conjunction with independent groups such as Biodiversity Advice Waikato.
4. Prioritise which covenants are currently suffering the greatest ecological threat (e.g. stock access). Ensure the owners are contacted and options on how to stop the damage are discussed with them face-to-face.
5. Set up a resource "library" of possum traps, useful books and guides etc. to loan out to covenant holders.
6. Establish an ongoing, dedicated, fund to provide for contributions for initial and ongoing management efforts.
7. Promote and assist landowners to apply to potential funding sources for ongoing covenant management costs.

5.4.3 Regulation

A limited amount of restrictive regulatory controls shall be used in recognition of the following factors:

1. Environment Waikato regulates drainage and vegetation destruction in wetlands and vegetation clearance on high-risk erosion areas and riparian areas (hill country and gullies). There is no need for the District Council to duplicate these controls.
2. The main threats to native bush are stock and pest invasion and the District Council cannot regulate land uses to address these directly.
3. Introducing regulatory controls can antagonise landowners and make them less willing to address the major threats referred to above.
4. Landowners are increasingly seeing remnant bush stands as assets and with few exceptions there is no economic incentive to clear these areas. Therefore in most cases the threat of clearance is low.
5. In some situations there may be economic incentives to clear bush.
 - a. Lowland bush remnants may be at risk of clearance for pasture expansion. The Council is addressing this threat by providing a significant financial incentive through additional subdivision opportunities if these remnants are retained and protected.
 - b. Coastal bush could be cleared for building development and certain areas could be cleared for major land use activities such as mining or quarry operations. In these situations the Council is unable to provide sufficient financial incentives to address these threats and so is introducing regulatory controls to ensure biodiversity values are fully considered when decisions about clearance are made.
6. Land uses adjoining streams, wetlands and bush can affect these remnant areas and the Council needs to exercise some control over the location of activities (setback distances) and standards (eg stormwater management, animal control) to protect these remnants. The Council will take into account the sensitivity of the receiving environment when deciding on zones (and hence development opportunities) in the District Plan.
7. Some surface water activities (eg motorised craft) can disturb aquatic and riparian habitats. In practice, most lakes are under the control of the Department of Conservation and that agency controls recreational activities on those lakes. Lakes Waahi and Kainui and the Waikato and Waipa Rivers are not under control of the Department and motor sports are an accepted activity on these water bodies. Therefore no controls on surface water activities are proposed to protect biodiversity values. Lake Weaver, a former open cast coal mine, is being established as a venue for motorised water sports.

The Proposed Waikato District Plan contains rules to address the protection of indigenous vegetation and habitats as follows:

Zone	Activity Restricted by Rules
All	<ul style="list-style-type: none"> ▪ Remediation of contaminated land if it is an area of significant indigenous vegetation or habitat ▪ Earthwork consent applications assessed against effects on indigenous vegetation
Country Living	<ul style="list-style-type: none"> ▪ Vegetation clearance in gullies
Living, Country Living, Pa, Business, Industrial	<ul style="list-style-type: none"> ▪ Stormwater discharges
Coastal Zone	<ul style="list-style-type: none"> ▪ Indigenous vegetation clearance ▪ Various activities are assessed against effects on indigenous vegetation (production forestry, building coverage, building near the coast, subdivision, building envelope)
Rural	<ul style="list-style-type: none"> ▪ Production forest and subdivision applications assessed against effects on indigenous vegetation ▪ Clearance of indigenous vegetation in Landscape Policy Area and Conservation Policy Area.

References

Clarkson B and Wallace I (2004) Wetlands of the Waikato District. Landcare Research Contract Report LC0304/099.

Kessels G and Riddell D (2003) Conservation Lot Covenant Assessment and Options for Management. Kessels and Associates Ltd. Report prepared for Waikato District Council.

Leathwick J, Clarkson B D and Whaley P T (1995) Vegetation of the Waikato Region: current and historical perspectives. Landcare Research Contract Report LC9596/022.

Department of Conservation and Ministry for the Environment (2000) The New Zealand Biodiversity Strategy.

Parminter T G and Wilson J A (2002a) National farmer survey on Riparian Management. AgResearch Report for the Foundation of Research Science and Technology, AgResearch, Hamilton, New Zealand.

Parminter T G and Wilson J A (2002b) National Farmer Survey on Preserving and Conserving Bush Remnants. AgResearch Report for the Foundation of Research Science and Technology, AgResearch, Hamilton, New Zealand.

Waikato Regional Council (1998) Waikato State of the Environment Report.

Waikato District Council (2000) Esplanade Strategy.

Waikato District Council (2004) Integrated Monitoring Strategy.

Appendix 1: Details of Implementation Steps for 2004 - 2006

1. Budget

Refer to the attached spreadsheet.

2. Private Land

2.1. Contestable fund allocation

2.1.1. Priority Sites

The following areas and habitat types are identified as priorities for the Council to provide funding assistance:

- (a) Existing conservation covenants (see below for further discussion.)
- (b) Wetlands, where the priority of a given site is confirmed through assessment against criteria being developed by the Waikato Biodiversity Forum.
- (c) Forest areas identified as highly valuable through a LENZ analysis and verified through a site visit.

Funding applications for other sites will also be considered.

2.1.2. Procedures

A standard funding application form shall be developed. Following receipt of an application, staff shall visit the site to make an assessment and recommendations. The following delegations shall apply to decision-making:

- (a) For applications exceeding \$1,500: a committee of Council shall decide on the application. Assistance shall be dependent upon a conservation covenant being registered on the property title.
- (b) For applications less than \$1,500: a staff member shall decide on the application, with the decision reported to the committee.

2.2. Covenants (Refer to Section 5.4.2)

The Council will purchase and send out to covenant holders (and to those who enter into fixed-term management agreements) complimentary copies of the QEII National Trust magazine and brochures regarding the free and independent Biodiversity Advice Waikato service. This will cost approximately \$1,000 per year and shall be funded from the conservation budget.

Biodiversity Advice Waikato will visit the covenant holders and inspect the covenant areas to promote active management and provide advice. They may assist covenant holders to make funding applications to the Council or

other funding agencies. The Hearings Committee has agreed to spend \$2,000 from the conservation budget on this. Staff shall inspect sites in response to funding applications or as part of a regular monitoring programme.

2.3. Non-covenant, privately owned areas

Priority sites have been identified through a wetland inventory and a Land Environments New Zealand (LENZ) analysis. Subject to landowner willingness, these sites will be visited to determine ecological values, management needs and landowner willingness to protect the areas. Funding applications will be processed using the procedures outlined above.

Initially, the Council will work with Federated Farmers and Biodiversity Advice Waikato to contact landowners seeking their approval for a visit by Biodiversity Advice Waikato. The need for Council staff or other agencies to make visits will be assessed after the initial visits.

3. Council Land

Refer to the attached spreadsheet.

4. Staff Training

Consent planners will be provided with sets of biodiversity brochures produced by other agencies and will be briefed on priority management issues. This will enable assessments to be made on whether priority issues exist on properties subject to a consent application. Identification of such priorities may result in a regulatory or non-regulatory response.

Service delivery staff will attend training seminars on biodiversity and best practice guidelines for works and services.

5. Research and Monitoring

The Council will support the University of Waikato as it seeks to develop an integrated monitoring strategy measuring trends in biodiversity. The research will focus on the Waikato District and will enable changes over time to be measured and predicted. This information will assist the Council to review the Conservation Strategy. A letter of support has been forwarded to the University, and a small financial contribution is being made from existing budgets.

Monitoring will be undertaken in accordance with the Council's Integrated Monitoring Strategy.

Conservation Strategy - Indicative Budget

Site	Priority					Current Budget (\$1000's)	Future Budget (\$1000's)	Description
	1	2	3	4	5			
Council Land Lakes								
Kainui		*				11	11	Enhance margins eg weed control, planting, silt traps Ongoing
Rotokauri	*					25	25	Ongoing
Hakanoa - maintenance	*					10	10	Ongoing
Hakanoa - new			*					Wetland enhancement; could occur over several years
Areare			*				5	Commence joint work with DOC and Fish and Game
Pikopiko - maintenance		*					5	Ongoing
Pikopiko - new	*							Wetland enhancement; could occur over several years
Rivers								
Waikato and Waipa (urban)	*					8	15	Enhance river banks and gullies Expand community-based projects
Tamahere gullies		*				10	10	Commence community projects
Whaingaroa Harbour Care	*					20	20	Ongoing grant
Esplanades		*				20	20	Various locations
Coast								
Dunecare		*				5	5	Ongoing protection with Dunecare group eg Wainui Reserve
Aro Aro Bay wetland	*					10		Major one-off works will be part of Rec Centre development
Native Forest								
Taniwha			*			5	10	Pest monitoring, pest control and fence repairs periodically
Waingaro	*							Weed control is urgently needed
Raglan			*					
Hakarimata (Council land)	*							
Roads								
culverts	*					20	20	Ensure fish passage at key sites
earthworks rehabilitation				*				Use native plants - part of existing roading budget
Other Council land								
utility reserves			*			10	10	Pest and weed control and planting for conservation purposes Ongoing
recreation reserves			*			5	10	Ongoing

Service Delivery					
	drainage works	*	20	20	Incorporate ecological objectives into willow control works
	staff training	*		5	Education eg ecological values, best practice guides
	Task Force Green		20	20	Various sites
Private Land					
Incentives					
	rate relief	*			As per LTCCP
	funding assistance	*	30	30	Covenants and agreements: establishment and ongoing costs
	Promotion	*		5	office displays; facilitate community projects
	Education	*	5	5	Enviroschools programmes
	Ecosourced Waikato	*	5	5	Community planting projects
	Biodiversity Advice Waikato	*		2	Support for free advisory service
	Regional Biodiversity Forum	*		2	Support for interagency and community coordination
Total			239	270	

Note The indicative future budget total does not include possible projects such as wetland creation and enhancement at Lakes Pikopiko and Hakanoa. Council funding will be required for such projects. Funds from external sources will also be sought for major projects.