

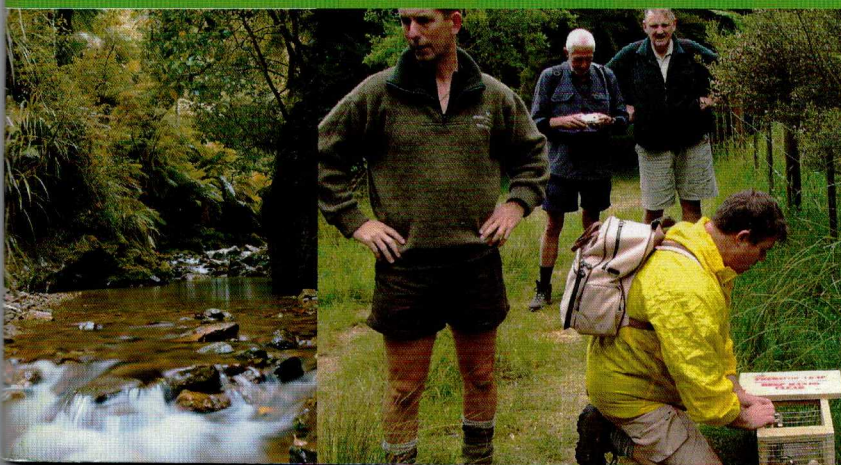
# Biodiversity Strategy 2011-21

A strategy to guide Greater Wellington's biodiversity management activities

Quality for Life



greater WELLINGTON  
REGIONAL COUNCIL  
Te Pane Matua Taiao





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## **Cover photos (anti-clockwise from top):**

Tui in a kowhai tree

Creek of the west Akatarawa River

Volunteers check stoat traps

Rare fleshy tree orchid

Greater Wellington staff with a green gecko

# 1. Executive summary

The purpose of this Biodiversity Strategy is to set out a framework that will guide Greater Wellington's activities that protect and manage indigenous biodiversity in the Wellington region for 10-years, ending 2021.

The Wellington region's indigenous biodiversity is significantly depleted and continues to be impacted by serious ongoing threats. Greater Wellington has clear statutory responsibilities and a strong community mandate to manage the regions biodiversity.

In line with national and international best practice guidelines, as well as Greater Wellington's policy objectives, the Biodiversity Strategy sets three goals that should guide Greater Wellington's biodiversity management activities until 2021. These are:

Goal One: Greater Wellington demonstrates leadership in biodiversity management

Goal Two: High value biodiversity areas are protected

Goal Three: Regional ecosystem functions are maintained and restored

Key actions have been identified for each of the three strategic goals. In the short term, after a period of transition to fulfil existing work programme commitments, it is envisaged that Greater Wellington's activities related to biodiversity will work towards these goals. Over time, reporting and budgeting across the organisation in relation to biodiversity activities and outcomes should also follow these goals.

## 2. Introduction and scope

### 2.1 Background

Greater Wellington Regional Council (Greater Wellington) has played a role in biodiversity management for many years. In November 2010 Greater Wellington established a Biodiversity department to provide a clearer focus for its biodiversity activities. This involved bringing together a range of existing programmes from across the organisation. It was acknowledged at the time the department was formed, that other parts of the Council would continue to play a significant role in delivering biodiversity outcomes.

The purpose of this Greater Wellington Biodiversity Strategy (the Strategy) is to act as a guide for activities across the organisation, not just the new Biodiversity department. However, implementing the Strategy will be the primary focus for the Biodiversity department.

Over the years, a number of reports relating to biodiversity and the challenges it faces (e.g. background for State of the Environment reporting) have been produced for a range of purposes. This Strategy is based on the contents of these various reports, which are noted as references.

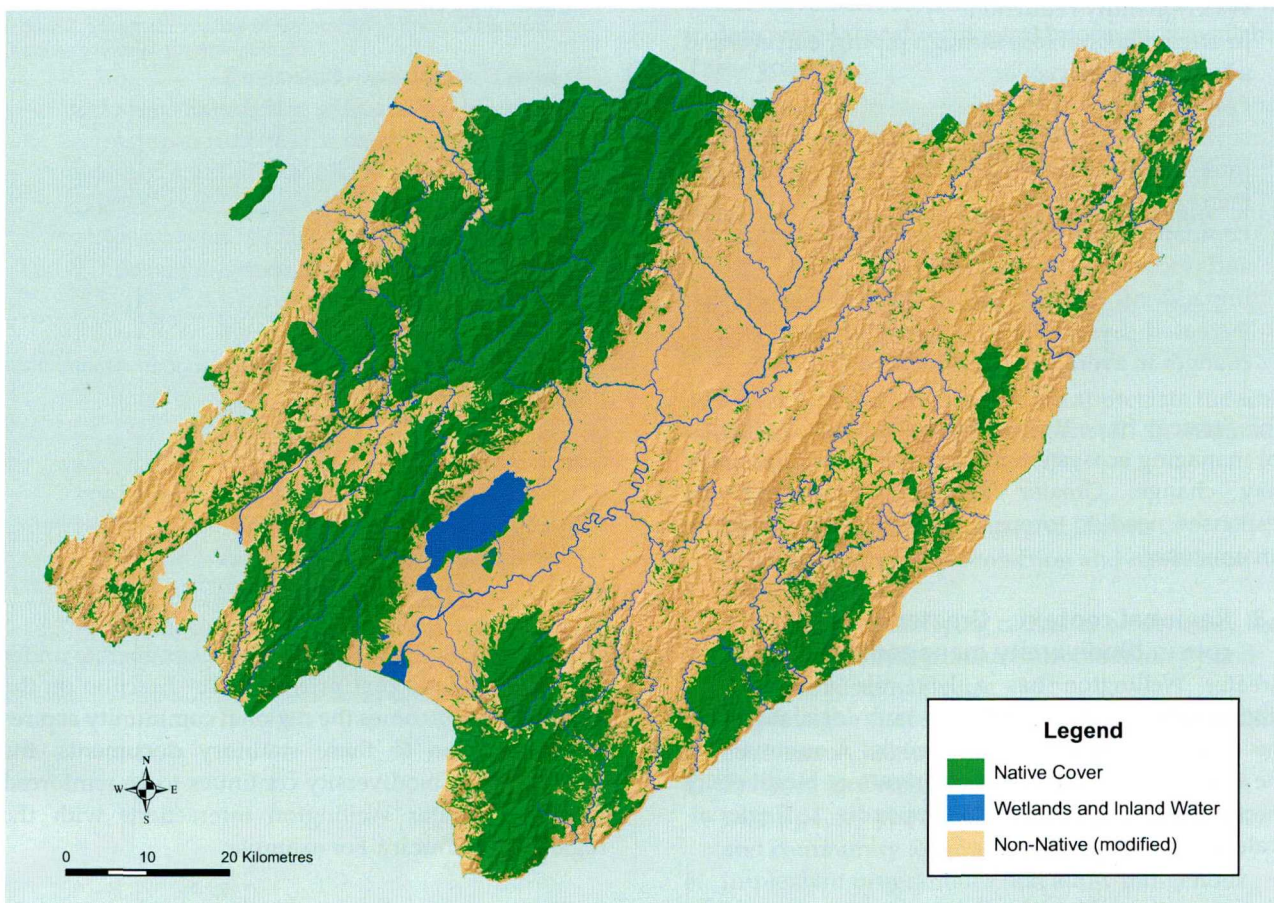
By preparing this Strategy, Greater Wellington is demonstrating its intention to maintain and, where possible, restore degraded biodiversity values throughout the region. We will build on this organisation's extensive experience managing biodiversity issues and will also proactively draw upon the experience and resources of others.

To achieve biodiversity objectives, Greater Wellington will need to provide leadership, protect our best and most threatened indigenous ecosystems, as well as ensure ecological processes function across the region's landscapes.

### 2.2 Biodiversity in the Wellington region: status and threats

Since the arrival of people in New Zealand, many native plants and animals have become extinct or persist only in reduced numbers. The Wellington region reflects this national picture – its biodiversity is severely depleted. For example, before human arrival around 98% of the region was forested. Today, just 28% survives – mostly on the hill country, while forest on the fertile lowland was cleared to make way for various land uses (see Figure 1 below). The story is even worse for other ecosystems, eg, less than 3% of the region's original wetland areas remain.

Figure 1: Current extent of native cover in the Wellington region



Data source: Land Cover Database III© Landcare Research (2012)



Not only have many ecosystems been reduced or lost completely, the condition of many of our remaining ecosystem types is poor and continues to degrade. The introduction of pest plants and animals has put further stress on the native ecosystems that remain, and now it is accepted that many of our terrestrial ecosystems cannot survive without intervention (Greater Wellington 2008). Many freshwater ecosystems, including the iconic Wairarapa Moana, have also been seriously ecologically degraded. Biodiversity in our waterways is under continuing pressure from loss of shade from surrounding vegetation, increasing nutrients loads from land use intensification, as well as pest plants and animals.

While the ecological, social, cultural, and economic importance of indigenous biodiversity to the Wellington region has been recognised for many years, regional biodiversity loss has been dramatic and there are still serious and ongoing threats to the remaining biodiversity rich areas. For example 121 taxa (group of organisms) are 'Acutely Threatened', 'Threatened', or 'Data Deficient' (not including freshwater fish) in the Wellington region (Molloy et al. 2002, & Townsend et al. 2008).

Ongoing threats to the Wellington region's biodiversity include:

- Ecosystem and habitat clearance and fragmentation
- Introduced pest plant and animals including further illegal releases
- Water quality degradation (sediments, nutrients, or toxins)
- Water quantity reduction
- In-stream habitat loss through piping, culverts and a lack of riparian cover
- Fire
- Direct harvest (e.g. fishing, hunting)
- Intensification of land use and poor land management
- Population growth and associated development and resource use pressures
- Impacts of climate change (e.g. sea level rise, increased severity and frequency of storm events, changes in average wind direction)

This Strategy has a 10-year horizon and the challenges for managing ecosystems and impacts on biodiversity may change. Greater Wellington's management responses need to prepare and plan for changing circumstances.

### 2.3 Regional context – Greater Wellington's role in biodiversity management

Greater Wellington has a key role in managing biodiversity which is set out in both legislation and the organisation's clear policy goals. A summary of the international and national drivers of biodiversity management is provided in Appendix 1. Regional-scale drivers are discussed below.

The operative Regional Policy Statement and the

proposed Regional Policy Statement (RPS) for the Wellington region (2010) provides direction to local authorities, including Greater Wellington. Table 1 summarises the biodiversity outcome objectives contained within the Proposed RPS (see Appendix 2 for a complete list of these objectives).

Over the last decade it has been recognised both internally and externally that Greater Wellington has a significant position of responsibility within the regional biodiversity management framework. For instance:

*The respondents saw the protection and restoration of biodiversity to be an important priority for the region. The main focuses for restoration efforts were the planting of native vegetation, particularly in urban areas, and encouraging pest control. The importance of community involvement in the restoration of biodiversity values was recognised by the respondents. The role of Greater Wellington was seen to be a mixture of non-regulatory, education and assistance and regulatory control that protect existing areas of high value.*

Natural Resources Plan Consultation Report  
GW 2010

**Table 1: Summary of the proposed Regional Policy Statement Biodiversity Objectives (as at 30 June 2011)**

#### **Ecosystems - Objective 16**

Indigenous ecosystems and habitats with significant biodiversity values are maintained and restored to a healthy functioning state.

#### **Coastal Environment - Objective 3**

Habitats and features in the coastal environment that have significant indigenous biodiversity values are protected; and habitats and features in the coastal environment that have recreational, cultural, historical or landscape values that are significant are protected from inappropriate subdivision, use and development.

#### **Fresh Water - Objective 13**

The region's rivers, lakes and wetlands support healthy functioning ecosystems.

#### **Soils - Objective 29**

Soils maintain those desirable physical, chemical and biological characteristics that enable them to retain their ecosystem function and range of uses.

Greater Wellington's work programmes operate under a suite of policies that provide clear direction on the biodiversity outcomes the regional community aspires to. In addition to these statutory documents, the importance of biodiversity continues to be reinforced in other Greater Wellington interactions with the regional community. For example:

*Biodiversity was important to the region for the special and unique experiences it provided people, such as being able to listen to bird song.*



*Biodiversity was equally important to both rural and urban communities. Many groups wanted to see ecological corridors included in a regional biodiversity strategy. This would enable communities to benefit from the linking together of the bird populations in recognised sanctuaries, eg, between Zealandia and Kapiti Island; and;*

*Mana whenua iwi examined natural resource management within its historical context and as a system linking the sea with the mountains. All the groups were concerned about aspects of biodiversity.*

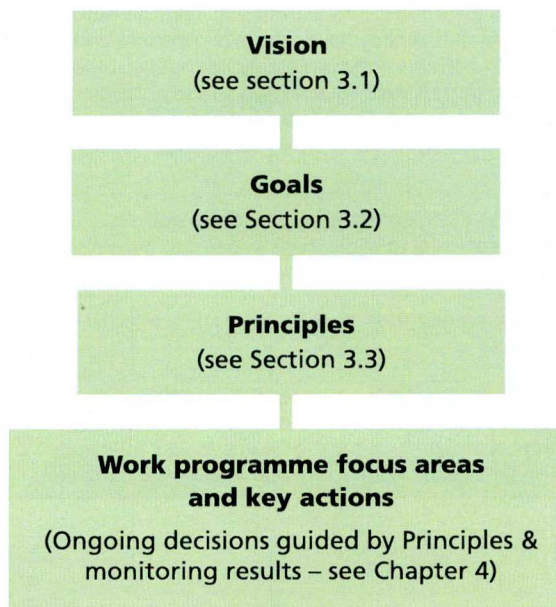
Natural Resources Plan Consultation Report, Greater Wellington 2010

As a result, Greater Wellington currently operates a range of programmes across the organisation that influence regional biodiversity outcomes (see Appendix 4).

### 3. Greater Wellington's approach 2011-21

In order to achieve biodiversity outcomes for the Wellington region, this Strategy identifies a clear vision, achievable goals, and a transparent process to focus and drive our work programmes. Figure 2 provides a schematic outline of this process.

Figure 2: Schematic outline of Greater Wellington's approach to Biodiversity work programmes 2012-21



#### 3.1 Our vision

The vision for biodiversity in the Wellington region is:

The Wellington region contains a full range of naturally occurring habitats and ecosystems that are in a healthy functioning state and supporting indigenous biodiversity.

For the purposes of this Strategy indigenous "biodiversity" is defined as:

*Biodiversity is short for biological diversity. It describes the variety of all biological life – the different species, from micro-organisms to trees, animals and fungi: the genes they comprise; and the ecosystems they collectively form. This includes diversity within species, between species and of ecosystems. It forms a fundamental part of the natural heritage and unique character of our region.*

Greater Wellington Biodiversity Implementation Plan 2008

This is consistent with previous and current council policies and documents.

#### 3.2 Our Goals

To guide Greater Wellington's biodiversity related activities over the next 10 years, three strategic goals have been identified for the region. These are adapted from national and international biodiversity best management practices (see Appendix 1 and Appendix 3) and have been assessed in relation to the most up to date regional-scale ecological information available. These goals are:

- Goal One: Greater Wellington demonstrates leadership in biodiversity management
- Goal Two: High value biodiversity areas are protected
- Goal Three: Regional ecosystem functions are maintained and restored

To achieve these goals, we need to appreciate the scale of the management challenges ahead. In summary these are to:

1. Build upon the experience and lessons of existing biodiversity protection and restoration programmes
2. Address the underlying causes of biodiversity loss
3. Reduce the direct pressures on biodiversity and promote sustainable use
4. Improve the status of biodiversity by safeguarding ecosystems, habitat and genetic diversity
5. Enhance implementation programmes through participatory planning, knowledge management and community and agency capacity building
6. Implement programmes that allow indigenous ecosystems to recover and be self sustaining



### 3.3 Our Principles

Biodiversity management occurs within social, cultural, economic and ecological contexts. It will be necessary to adapt to changing circumstances and new information within the timescale of this Strategy. Greater Wellington needs to focus effort where it is most confident that positive biodiversity outcomes can be achieved efficiently and effectively. Biodiversity best practice knowledge from New Zealand and

overseas (for examples, see Appendix 3) has been used to develop guiding principles for decision making under this Strategy.

The principles set out in Table 2 will provide a consistent framework to guide changes to Greater Wellington's operational focus or resource allocations when implementing this Strategy.

Table 2: Biodiversity Strategy Principles

Principle (order does not indicate priority)	Explanation
Follow international and national best practice in fulfilling our biodiversity management responsibilities	During the Strategy's 10-year timeframe, GW will have to respond to changing social, economic and ecological circumstances. Current best practice will be followed as resources are allocated and work programmes are designed and implemented.
Work proactively and in partnership with tangata whenua	The relationship tangata whenua have with the region's indigenous species and their habitats is recognised by GW. It is acknowledged that reflecting iwi aspirations within our biodiversity work programmes will require particular focus as the Strategy is implemented.
Lead by example: managing our own lands and activities well	GW acknowledges that as owners and managers of significant land parcels throughout the region, and as an organisation that undertakes a wide range of activities, we should demonstrate management approaches that protect and restore the region's biodiversity.
Focus on protecting existing ecosystems and habitats	It is well established that it is better to protect existing ecosystems than to try and restore degraded ones. As such, protecting remaining areas of biodiversity in the region, regardless of land tenure, is critical to achieving the Strategy's vision. Protection in this context includes both legal and physical mechanisms.
Focus on the areas of highest biodiversity value	Resources for protecting and restoring biodiversity are limited. It is important that our biodiversity work programmes are focussed on the areas of highest value.
Work proactively and in partnership with stakeholders, eg, Territorial Authorities (TAs), Department of Conservation (DoC), private landowners; other agencies; non-government organisations (NGOs) and the regional community	The long-term success of biodiversity management at the regional scale will reflect the cumulative impacts of activities by agencies and regional stakeholders. GW staff already have extensive networks and working relationships with partners and stakeholders throughout the region. The value of these partnerships to achieving successful regional-scale biodiversity outcomes is crucial. There is a need to build on these existing partnerships and proactively foster new relationships to address biodiversity issues.
Utilise the full range of regulatory and non-regulatory tools to achieve the Strategy's vision	GW has a suite of regulatory and non-regulatory tools to address biodiversity issues. It will continue to apply these in order to maximise positive biodiversity outcomes.
Ensure work programmes are cost effective, practical and appropriately monitored	GW recognises that work programmes must be achievable, affordable and effectively monitored.
Raise awareness of biodiversity issues throughout the Wellington region	Effective communication, engagement and education approaches are important so that residents of the Wellington region are aware of biodiversity issues, threats and management activities as well as actions they can personally undertake to improve regional biodiversity outcomes.



## 4. Greater Wellington's Operational Focus 2011-21

*Vision and strategy must be translated into action at each level of the organization and, beyond that, these actions must be reviewed by senior management to ensure they are mutually supportive and well coordinated across work units and levels (rather than everyone going off and doing what they think is best for their work unit) and monitored to ensure performance expectations are met or to recalibrate the plan when new information becomes available.*

Dave Choquenot Landcare Research –  
Presentation to Regional Council Biodiversity  
Forum, January 2009

This chapter identifies key actions for Greater Wellington and links them with the three strategic Goals established in Chapter 3. Timelines for implementation are provided and Appendices 4, 5 and 6 summarise how key operational activities could be implemented across the organisation.

### 4.1 Goal One: Greater Wellington demonstrates leadership in biodiversity management

This goal recognises that Greater Wellington is clearly positioned to provide leadership to address regional biodiversity issues based on its functions stipulated in legislation, such as the Resource Management Act 1991 (RMA). Greater Wellington is also responsible for the provision of services, such as flood protection, bulk water supply, land management, biosecurity, and resource management planning and consenting. This leads to engagement with a wide range of organisations, communities and individuals. Our range of functions, connections and community expectations for the region's biodiversity, indicate that Greater Wellington is well placed to lead biodiversity management.

Section 2.2 highlighted ongoing threats to biodiversity in the Wellington region. Associated with these threats, significant challenges remain to address the underlying causes of regional biodiversity decline. This biodiversity management leadership opportunity comes with challenges that cross the organisation's structure. One important aspect of providing regional leadership for biodiversity will be to demonstrate best practice in our work programmes and on lands Greater Wellington owns or manages. This will enable us to effectively promote and advocate for improved biodiversity awareness and outcomes elsewhere.

Greater Wellington recognises that to provide effective leadership:

1. Our own lands must be managed well
2. Our programmes and processes need to be coordinated internally to ensure that we account for biodiversity outcomes
3. We need to assess new information as it becomes available and pro-actively adopt biodiversity best practice management and monitoring techniques.

Key actions to enable Greater Wellington to provide leadership in biodiversity management are identified in Table 3.



**Table 3 Greater Wellington demonstrates leadership in biodiversity management – key actions**

Focus Area	Key Actions 2012 –2021	Timeline
<b>Implementing best practice and leadership on GW lands and in GW programmes</b>	Assess GW lands and programmes to identify actions that will maintain and improve biodiversity outcomes.	June 2012
	Identify and implement biodiversity management best practices and Standard Operating Procedures (SOPs) for GW work programmes.	July 2011 – June 2013
<b>Biodiversity sites of significance to iwi</b>	Work with iwi to identify an appropriate process to incorporate biodiversity sites of cultural significance into GW activities.	July 2011 – June 2012
	Work with iwi, conduct an assessment of biodiversity sites of cultural significance.	July 2012 – June 2013
	Work with iwi, develop management strategies for biodiversity sites of cultural significance and, where appropriate, incorporate these into GW plans and activities.	From 2014
<b>Regional biodiversity monitoring programme</b>	Build on the existing GW monitoring system and establish a framework for monitoring and reporting the state of regional biodiversity consistent with national best practice.	2012
	Develop indicators to monitor the effectiveness of GW biodiversity programmes in improving social awareness and affecting behaviour change within the regional community.	2012
<b>Understanding the economic value of biodiversity to the Wellington region</b>	Collate existing information on the value of ecosystems services and indigenous biodiversity to the Wellington region. Identify GW research needs in this area.	June 2012
	Establish partnerships with other stakeholders to implement a regionally relevant research programme.	June 2012
<b>Climate change</b>	Assess likely impacts of climate change on biodiversity of the Wellington region and how they can be managed.	June 2012
<b>Engage community in biodiversity programmes</b>	Develop a cross-organisation approach to engage with communities and support community actions based on the principles outlined in this Strategy.	July 2011 – June 2013
<b>Biodiversity training for GW staff</b>	Incorporate biodiversity concepts and goals into GW relevant staff training programmes.	December 2012
<b>Media / social promotion of biodiversity issues</b>	Develop and implement a cross-organisation communications plan for key internal and external audiences.	July 2012
<b>Develop interagency biodiversity planning and regulatory partnerships</b>	Where possible incorporate the biodiversity principles, concepts and actions identified by this Strategy into regulatory and planning processes.	Ongoing
<b>Specific biodiversity messages delivered by GW's education team</b>	Encourage and support schools to undertake biodiversity focused action projects.	From July 2011

#### 4.2 Goal Two: High value biodiversity areas are protected

This goal recognises that many ecosystems in the region have become degraded and fragmented and that their future survival is dependant on active management to reduce threats such as pest animals and plants.

To achieve this goal Greater Wellington will need processes that integrate short term demands for service delivery with the need to invest in high value areas that require a longer term approach. Greater Wellington's approach to managing high value biodiversity areas will be based on the following criteria:

1. The level of resources and/or effort applied to a specific site will reflect the site's values and the urgency to reduce threats;
2. Legal protection is desirable to secure any ratepayer-funded management investment;
3. Management efforts for complex high value sites should be guided by "Biodiversity Area Management Plans"; and
4. Greater Wellington will work with other agencies, tangata whenua and the community to achieve its objectives for an area.

Key actions to protect and manage high biodiversity values areas are identified in tables 4, 5 and 6 for freshwater, terrestrial, and marine ecosystems.



**Table 4 High value biodiversity areas are protected: Freshwater ecosystems – key actions**

Focus Area	Key Actions 2012 –2021 (Includes river, stream and lake ecosystems)	Timeline
<b>Site protection and management</b>	Identify the highest biodiversity value stream systems for proactive management.	June 2012
	Re-establish riparian areas along the 10 highest priority stream systems.	2021
	Remove barriers to native fish passage with priority given to high value stream systems.	Ongoing
<b>Promotion and advocacy</b>	Advocate and provide incentives for good agricultural practice including: fencing stock out of streams; nutrient budgeting and management; and planting (native or non-native) along riparian margins for shading stream environments.	Ongoing
	Advocate and provide incentives for good urban practice including: culvert and weir design, stream day-lighting, storm water treatment systems (e.g. "Urban Design Protocol" and the practice of "Low Impact Urban Design and Development")	Ongoing

**Table 5 High value biodiversity areas are protected: Terrestrial ecosystems – key actions**

Focus Area	Key Actions 2012 –2021 (Includes forest, wetland, estuary and coastal ecosystems)	Timeline
<b>Site protection and management</b>	Advocate and provide incentives for legal protection of high value biodiversity areas (e.g. covenanting).	Ongoing
	Advocate and provide incentives for physical protection of high value biodiversity areas (e.g. fencing, pest control etc).	Ongoing
	Develop "Biodiversity Area Management Plans" for high value sites (on GW, TA and private land).	2012-14
	Implement "Biodiversity Area Management Plans" for high value sites where GW is investing funds (e.g. Porirua Harbour).	From 2013
<b>Planning processes</b>	Fully consider the effects of activities on biodiversity within resource consent assessments.	Ongoing
	Advocate for recognition of high value biodiversity areas in district and regional plans.	Ongoing
<b>Promotion and advocacy</b>	Educate target audiences about the region's biodiversity and the importance of high value biodiversity areas.	Ongoing
	Raise awareness amongst the wider community about the region's biodiversity and the importance of high value biodiversity areas.	Ongoing
	Support community driven biodiversity restoration projects, whilst giving priority to those associated with high value biodiversity areas.	Ongoing
<b>Habitat of rare or significant species</b>	Support "Islands" of biodiversity around the region (e.g. Kapiti Island, Mana Island, Zealandia, Project Kaka, East Harbour, Matiu/Somes Island, Wainuiomata, Pukaha/Mt Bruce, Aorangi).	Ongoing
	Identify habitats of regionally rare, significant or threatened species in the Wellington region.	June 2012
	Develop management plans for identified habitats of rare, significant or threatened species and incorporate these into GW biodiversity planning and management activities.	From July 2013



## References

Greater Wellington 2008, Biodiversity Implementation Plan 2008-2012 (Greater Wellington document number 529116)

Greater Wellington 2010, Proposed Regional Policy Statement for the Wellington Region

Molloy, J.; Bell, B.; Clout, M.; de Lange, P.; Gibbs, G.; Given, D.; Norton, D.; Smith, N.; Stephens, T. 2002, Classifying species according to threat of extinction. A system for New Zealand. Threatened Species Occasional Publication 22. Department of Conservation, Wellington. 26p

Townsend, A.J.; de Lange, P.J.; Duffy, C.A.J.; Miskelly, C.M.; Molloy, J.; Norton, D. 2008, New Zealand Threat Classification System manual. Wellington, Department of Conservation. 35p



# Appendix 1: Biodiversity – International and National Context

Figure 1 schematically presents the key factors contributing to overall biodiversity outcomes in the Wellington region. The following sections provide detail on these international, national and regional contexts.

## 1. International context

The New Zealand government is a signatory to the International Convention on Biological Diversity (CBD) – [www.cbd.int/convention](http://www.cbd.int/convention). This convention, signed by 193 nations, recognises the global scale of the threats to biodiversity and provides targets for countries to achieve at a national scale.

At the most recent CBD conference, held in Nagoya, Japan (October, 2010), a new 10-year strategic plan was adopted. The 2010 CBD strategic plan identifies the following as key actions to achieve effective biodiversity gains. These include:

- Initiating action to address the underlying causes of biodiversity loss
- Taking action now to decrease the direct pressures on biodiversity
- Continuing direct action to safeguard and, where necessary, restore biodiversity and ecosystem services

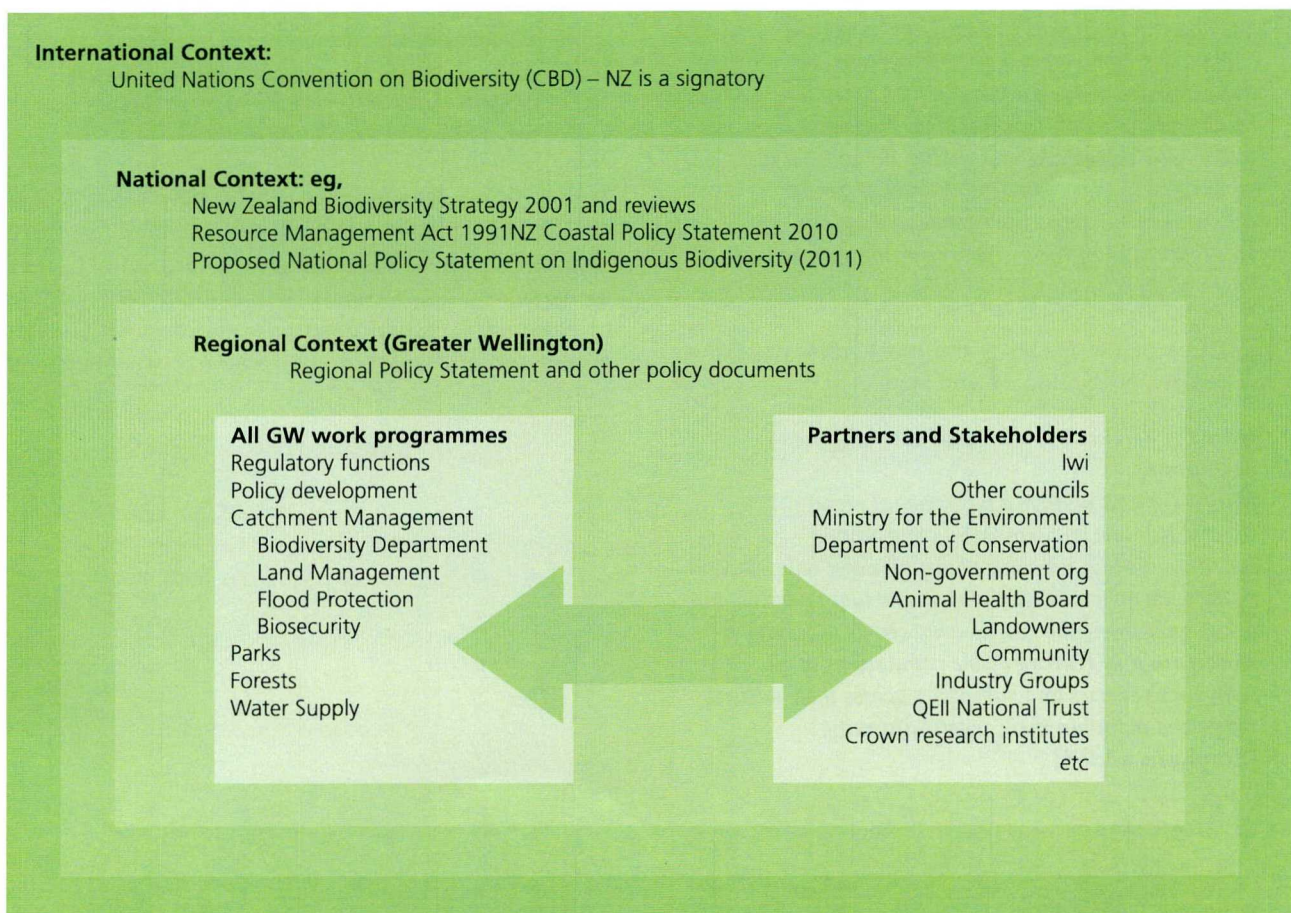
- Efforts to ensure the continued provision of ecosystem services and to ensure access to these services
- Enhanced support mechanisms for: capacity-building; the generation, use and sharing of knowledge; and access to the necessary financial and other resources ... to highlight the relevance [of biodiversity] for social and economic agendas

The CBD strategic plan also includes the following:

*[the CBD] urges regional organizations to consider the development or updating of regional biodiversity strategies, as appropriate, including agreeing on regional targets, as a means of complementing and supporting national actions and of contributing to the implementation of the Strategic Plan for Biodiversity 2011-2020*

By preparing and implementing this Biodiversity Strategy Greater Wellington is contributing to international biodiversity protection efforts and following international trends in biodiversity management.

Figure 1: Greater Wellington has a clear role managing regional biodiversity and, combined with other partners and stakeholders, influences biodiversity outcomes around the region





## 2. National context

Greater Wellington's biodiversity programmes occur within a framework of national legislation, strategies and guidelines. National legislation and policy that relates to the management of indigenous biodiversity has been developed and enacted over many years. The legislation includes the Wildlife Act 1953; Reserves Act 1977; Queen Elizabeth II National Trust Act 1977; Marine Mammal Protection Act 1978; Conservation Act 1987; Forests Amendment Act 1993; and the Biosecurity Act 1993. The most relevant to Greater Wellington's activities is the Resource Management Act 1991 (RMA) in which 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" and sections 30 (Functions of regional councils) and 35 (Duty to gather information, monitor and keep records) provide even more explicit direction.

For a more complete review of this legislative framework refer to the Great Wellington Biodiversity Implementation Plan 2008-2012.

### 2.1 New Zealand Biodiversity Strategy (2000)

The New Zealand Biodiversity Strategy (NZBS) reflects New Zealand's commitment to the United Nations Convention on Biological Diversity. It sets out national goals and principles for managing New Zealand's biodiversity. The vision in the NZBS is:

*New Zealanders value and better understand biodiversity; we all work together to protect, sustain and restore our biodiversity, and enjoy and share in 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.*

Goal Three of the NZBS is the most relevant to the work of Greater Wellington and states:

*Halt the decline in New Zealand's indigenous biodiversity  
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  
Maintain and restore viable populations of all indigenous species and subspecies across their natural range and maintain their genetic diversity.*

[Emphasis added]

The aims contained within the NZBS have been strongly supported by Greater Wellington for over a decade. For example:

*With this scale of benefit [of biodiversity/ ecosystem services] in mind (and leaving aside ethical arguments about intrinsic values and the fact that most of these services are actually irreplaceable), one thing is clear. Namely, that there is considerable merit in maintaining current levels of biodiversity as a minimum target, and of ensuring the healthy functioning of ecosystem processes across as wide a range of environmental systems (both natural and modified) as possible.*

[Emphasis added]

Wellington Regional Council, Submission on the Draft NZ Biodiversity Strategy 1999

### 2.2 Proposed National Policy Statement on Biodiversity (2011)

The Proposed National Policy Statement on Biodiversity (NPS) states that the need to maintain New Zealand's indigenous biological diversity is a matter of national significance. The objectives of the NPS are:

*To promote the maintenance of indigenous biological diversity by protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna, and to encourage protection and enhancement of biodiversity values more broadly while:*

- Supporting best practice of local authorities
- Recognising the positive contribution of landowners as guardians/kaitiaki of their land
- Recognising that the economic, social and cultural well-being of people and communities depends on, amongst other things, making reasonable use of land. (Pg 5)

This NPS is currently in its consultation phase and is likely to be gazetted within the next 12 months. Once operational, the NPS objectives, along with its key management goals concepts (including "no net loss of biodiversity") will need to be applied by Greater Wellington throughout its resource management functions under the RMA.



## Appendix 2: Proposed Regional Policy Statement Objectives (as at 30 June 2011)

### **Objective 3**

Habitats and features in the coastal environment that have significant indigenous biodiversity values are protected; and habitats and features in the coastal environment that have recreational, cultural, historical or landscape values that are significant are protected from inappropriate subdivision, use and development.

### **Objective 4**

The natural character of the coastal environment is protected from the adverse effects of inappropriate subdivision, use and development.

### **Objective 5**

Areas of the coastal environment where natural character has been degraded are restored and rehabilitated.

### **Objective 6**

The quality of coastal waters is maintained or enhanced to a level that is suitable for the health and vitality of coastal and marine ecosystems.

### **Objective 7**

The integrity, functioning and resilience of physical and ecological processes in the coastal environment are protected from the adverse effects of subdivision, use and development.

### **Objective 8**

Public access to and along the coastal marine area, lakes and rivers is enhanced (Objective 8 is shared for the coastal environment and fresh water).

### **Objective 12**

The quantity and quality of fresh water:

- (a) meet the range of uses and values for which water is required;
- (b) safeguard the life supporting capacity of water bodies; and
- (c) meet the reasonably foreseeable needs of future generations.

### **Objective 13**

The region's rivers, lakes and wetlands support healthy functioning ecosystems.

### **Objective 14**

Water is used efficiently and is not wasted.

### **Objective 16**

Indigenous ecosystems and habitats with significant biodiversity values are maintained and restored to a healthy functioning state.

### **Objective 29**

Soils maintain those desirable physical, chemical and biological characteristics that enable them to retain their ecosystem function and range of uses.

# Appendix 3:

## Best Practice Biodiversity Concepts

### Biodiversity must be protected and restored

1. *In situ* conservation – Biodiversity is best managed and protected in situ where landscapes, ecosystems and ecological processes maintain species in their natural habitats. Complementary ex situ restoration activities should support in situ conservation if required.
2. Outcome focused – Priorities for action are based on the need to achieve biodiversity protection and restoration outcomes.
3. Appropriate planning – Biodiversity protection and restoration activities are planned at the appropriate biological, spatial and temporal scales in consultation with government, industries, and urban, rural and indigenous communities.
4. Managing the cause – It is essential to prevent the introduction of new threats and deal with existing threats at their root cause.
5. Prevention – Preventing the loss of biodiversity by dealing with threats is preferable to reconstruction and treating symptoms.
6. Precautionary – Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
7. Sustainable use – Protecting and restoring biodiversity is a priority but this does not preclude appropriate use that is ecologically sustainable for the long term.

### People are the solution

8. Sharing responsibilities – All parties (government, industries and urban, rural and indigenous communities) benefit from biodiversity and have a responsibility for its conservation and their share of the costs for managing it sustainably.
9. Working together – Government, industries and urban, rural and indigenous communities must work together with inclusive and transparent decision making to ensure protection, management and sustainable use of biodiversity.
10. Indigenous values – Indigenous heritage, knowledge and cultural values should be integrated with the conservation and sustainable use of biodiversity.

### Knowledge provides a platform

11. Developing knowledge – It is essential to develop and share knowledge, and seek and value the wisdom of government, industries, and urban, rural and indigenous communities.
12. Best available knowledge – The best available biodiversity knowledge should be used in a precautionary way as part of a risk management approach to informed decision-making.
13. Adaptive management – Biodiversity management must incorporate an adaptive approach that is flexible and inclusive, continually improves by testing and learning, and is based on science where appropriate.

### Sustainable outcomes must underpin efforts

14. Ecological capacity – The use of our natural resources in response to social and economic pressures must work within ecologically sustainable limits to maintain their life supporting capacity and conserve biodiversity.
15. Ecosystem approach – Biodiversity management will be most effective when we adopt an ecosystem approach that recognises and integrates all components (genes, species, ecosystems) and attributes (components, patterns, processes) of the biodiversity hierarchy, and manages these at appropriate spatial and temporal scales.

*Adapted from: Convention on Biological Diversity 2011; Department for Environment and Heritage 2007; UNEP 2005*



## Appendix 4:

# GW Programmes Contributing to Biodiversity Outcomes

Biodiversity Management Activities						
Greater Wellington Work Area	Direct biodiversity management – damage caused by harmful organisms and activities in the Wellington Region is prevented or reduced.					Activities leading to increased public awareness of biodiversity issues and participation in biodiversity management programmes
	Protecting & maintaining existing areas of high biodiversity value: Legal & physical actions	Statutory & Advisory processes: eg, Working within GW and TA regulatory & planning processes	Monitoring of ecosystem & species trends/ research & investigations	Restoration of degraded sites & ecosystems	Advice to landowners & other groups (oral written & site visits)	
Biodiversity	•	•	•	•	•	•
Biosecurity	•	•	•	•	•	•
Land Mgt	•	•		•	•	•
Flood protection	•	•	•	•	•	•
Regulatory processes	•	•		•	•	•
Environmental Monitoring & investigations	•	•	•			•
Parks and Forests	•	•		•		•
Plantation Forestry		•		•		
Planning	•	•				•
Communications					•	•
Marketing				•		•



## Appendix 5: Example of Targets to be Incorporated into Operational and Monitoring Plans

Strategic Objective	Specific Target
<b>Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society</b>	1: By 2021, people in the Wellington region are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.
	2: By 2021, biodiversity values have been integrated into regional and local planning processes and are being incorporated into regional accounting and reporting systems
	3: By 2021, incentives harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the management and ecologically sustainable use of biodiversity are developed and applied.
	4: By 2021, business in the region have taken steps to achieve or have implemented plans for ecologically sustainable production and consumption
<b>Reduce the direct pressures on biodiversity and promote sustainable use</b>	5: By 2021, the rate of loss of all natural habitats is brought close to zero, and degradation and fragmentation is significantly reduced.
	6: By 2021, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity values.
	7: By 2021, regionally invasive species and pathways are identified and prioritised, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.
	8: By 2015, the anthropogenic pressures on regionally vulnerable ecosystems are minimised, to maintain their integrity and functioning.
	9: By 2021, at least 20% of terrestrial and inland water areas, and 10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.
<b>To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity</b>	10: By 2021, the extinction of known rare, significant or threatened species has been prevented by protection and management of their habitat and their status, particularly of those most in decline, has been improved.
	11: By 2015, management plans have been prepared for each of the "top 30" priority ecosystem sites
<b>Enhance implementation through participatory planning, knowledge management and capacity building</b>	12: By 2015, a regionally focussed Maori Biodiversity Plan has been appropriately developed and fully integrated and reflected in this Operational Plan
	13: By 2021, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and applied.



# Appendix 6: Implementation of GW's Biodiversity Key Actions 2011-21

The following tables use the key actions identified in Chapter 3 of the Biodiversity Strategy and illustrate the cross-organisational nature of how the actions could be delivered by Greater Wellington.

Note that these tables will be further refined in consultation with the departments listed during the preparation of the Biodiversity Operational Plan.

## TABLE KEY:

★	Lead department
●	Department needs to be involved
Biodiv	Biodiversity department
Biosec	Biosecurity department
Comms	Communications
Corp Plan	Corporate Planning
EMI	Environmental Monitoring and Investigations
Envtal Policy	Environmental Policy
Envtal Reg	Environmental Regulation
Land Mgt	Land Management
P&C	People and Capability
Strat Plan	Strategic Planning
Te Hunga Whiri	Te Hunga Whiriwhiri



Goal One: Demonstrating leadership in biodiversity management		Biodiv	Biosec	Comms	Corp Plan	EMI	Env Policy	Env Reg	Flood Protcn	Land Mgt	Parks	P&C	Strat Plnng	Te Hunga Whiri	Water Supply
<b>Key Actions</b>															
<b>Implementing best practice and leadership on GW lands and in GW programmes</b>	Assess GW lands and programmes to identify actions that will improve biodiversity outcomes.	★	●		●	●		●	●	●	●				
	Identify and implement biodiversity management best practices and Standard Operating Procedures (SOPs) for GW work programmes and disseminate these to the regional community.	★	●	●	●		●	●	●	●	●				
<b>Biodiversity sites of cultural significance</b>	Work with iwi to identify an appropriate process to incorporate biodiversity sites of cultural significance into GW management activities.	★					●				●			●	
	In conjunction with iwi, conduct an assessment of biodiversity sites of cultural significance.	★				●					●			●	
	In conjunction with iwi, develop management strategies for biodiversity sites of cultural significance and, where appropriate, incorporate these into GW activities.	★	●				●		●	●	●			●	
<b>Regional biodiversity monitoring programme</b>	Build on the existing GW monitoring system and establish a framework for monitoring and reporting the state of regional biodiversity.	●				★	●	●							
	Develop indicators to monitor the effectiveness of GW biodiversity programmes in improving social awareness and affecting behaviour change within the regional community.	★		●		●	●				●				



Goal One: Demonstrating leadership in biodiversity management		Biodiv	Biosec	Comms	Corp Plan	EMI	Env Policy	Env Reg	Flood Protcn	Land Mgt	Parks	P&C	Strat Plnng	Te Hunga Whiri	Water Supply
<b>Key Actions</b>															
<b>Understanding the economic value of biodiversity to the Wellington region</b>	Collate existing information of the value of ecosystems services and indigenous biodiversity to the Wellington region. Identify GW research needs in this area.	★				●									
	Establish partnerships with other stakeholders to implement research programme.	★													
<b>Climate change</b>	Assess likely impacts of climate change on biodiversity of the Wellington region and how they can be managed.	★	●										●		
<b>Engage community in biodiversity programmes</b>	Develop a cross-organisation approach to engage with communities and support community actions based on the principles outlined in this Strategy.	★	●	●		●			●	●	●				
<b>Biodiversity training for GW staff</b>	Incorporate biodiversity concepts and goals into GW relevant staff training programmes.	★										●			
<b>Media/social promotion of biodiversity issues</b>	Develop and implement a cross-organisation communications plan for key internal and external audiences.	●	●	★											
<b>Develop interagency biodiversity partnerships</b>	Where possible incorporate the biodiversity principles, concepts and actions identified by this Strategy into GW and TA regulatory and planning processes.	●	●		●		★	●			●			●	
<b>Specific biodiversity messages delivered by GW Environmental Education in schools programme</b>	Encourage and support schools to undertake biodiversity focused action projects.	★		●											



Goal Two: Protecting and managing high value biodiversity areas: Freshwater Ecosystems - Key Actions		Biodiv	Biosecc	Comms	Corp Plan	EMI	Env Policy	Env Reg	Flood Protection	Land Mgmt	Parks	P&C	Strat Plan	Te Hunga Whiri	Water Supply
Site protection and management	Identify the highest biodiversity value stream systems for proactive management.	★	●			●	●		●	●	●				
	Re-establish riparian areas along the 10 highest priority stream systems.	★	●			●			●	●	●				
	Remove barriers to native fish passage with priority given to high value stream systems.	★				●			●	●	●				●
Promotion and advocacy	Advocate and provide incentives for good agricultural practice including: fencing stock out of streams; nutrient budgeting and management; and planting (native or non-native) along riparian margins for shading stream environments.	●				●	●		●	★	●				
	Advocate and provide incentives for good urban practice including: culvert and weir design, stream daylighting, storm water treatment systems (e.g. "Urban Design Protocol" and the practice of "Low Impact Urban Design and Development")	●				●	★		●		●				●



Goal Two: Protecting and managing high value biodiversity areas: Terrestrial Ecosystems - Key Actions		Biodiv	Biosec	Comms	Corp Plan	EMI	Env Policy	Env Reg	Flood Protection	Land Mgtmt	Parks	P&C	Strat Plan	Te Hunga Whiri	Water Supply
Site protection and management	Advocate and provide incentives for legal protection of high value biodiversity areas (e.g. covenanting).	★	●	●					●	●					
	Advocate and provide incentives for physical protection of high value biodiversity areas (e.g. fencing, pest control etc).	★	●	●					●	●	●				
	Develop "Biodiversity Area Management Plans" for high value sites (on GW, TA and private land).	★	●			●	●	●	●	●	●				●
	Implement "Biodiversity Area Management Plans" for high value sites (on GW, TA and private land) where GW is investing funds.	★	●			●	●	●	●	●	●				●
Planning processes	Provide input into resource consent assessments where they have potential to affect high value biodiversity areas.	●	●		●	●	●	★		●	●				
	Advocate for recognition of high value biodiversity areas in district and regional plans.	●			●		★				●				
Promotion and advocacy	Educate target audiences about the region's biodiversity and the importance of high value biodiversity areas.	★	●	●		●	●	●	●	●	●				
	Raise awareness amongst the wider community about the region's biodiversity and the importance of high value biodiversity areas.	●	●	★				●	●	●	●				
	Support community driven biodiversity restoration projects, whilst giving priority to those associated with high value biodiversity areas.	★	●	●					●	●	●				



Goal Two: Protecting and managing high value biodiversity areas: Terrestrial Ecosystems - Key Actions		Biodiv	Biosec	Comms	Corp Plan	EMI	Env Policy	Env Reg	Flood Protection	Land Mgtmt	Parks	P&C	Strat Plan	Te Hunga Whiri	Water Supply
Habitat of rare or significant species	Support "Islands" of Biodiversity around the region (e.g. Kapiti Island, Mana Island, Zealandia, Project Kaka, East Harbour, Matiu / Somes Island, Wainuiomata, Pukaha / Mt Bruce).	★	●				●	●			●				
	Identify habitats of rare, significant or threatened species in the Wellington region.	★	●			●					●				
	Develop management plans for identified habitats of rare, significant or threatened species and incorporate these into GW biodiversity planning and management activities.	★	●			●		●		●	●				

Goal Two: Protecting and managing high value biodiversity areas: Marine Ecosystems - Key Actions		Biodiv	Biosec	Comms	Corp Plan	EMI	Env Policy	Env Reg	Flood Protection	Land Mgtmt	Parks	P&C	Strat Plan	Te Hunga Whiri	Water Supply
Promotion and advocacy	Establish an interagency management forum to identify actions that better integrate management of biodiversity within the Wellington Coastal Marine Area.	★	●			●	●								
Site protection and management	Analyse existing species data to identify key high value biodiversity areas and habitats within the Wellington region's CMA.	★				●	●								
	GW work programmes (e.g. planning tools) adapted to address marine biodiversity issues.	★				●	●	●		●					



Goal Three: Maintaining and restoring regional ecosystem functions: Key Actions		Biodiv	Biosecc	Comms	Corp Plan	EMI	Env Policy	Env Reg	Flood Protection	Land Mgmt	Parks	P&C	Strat Plan	Te Hunga Whiri	Water Supply
<b>Developing regional ecological linkages</b>	Identify up to five ecological linkage pilot projects for inclusion in the 2012-2014 Biodiversity Operational Plan.	★	●							●	●				●
	Develop monitoring processes specific to the ecological linkage projects / programme so that biodiversity trends can be identified.	★	●			●	●				●				
	Develop multi stakeholder approaches to implement the linkage projects and programme.	★	●	●			●			●	●				
	Provide management advice to landowners and other groups (oral, written and site visits etc).	★	●							●					
	Develop management strategies for each regional linkage project.	★	●					●		●					
	Encourage the identification of the linkage networks in GW and TA statutory planning documents.	●	●	●				★		●	●				
<b>Reduce the negatives impacts of economic and other activities</b>	Work within GW and TA regulatory and planning processes.	★	●				●	●	●		●				
	Develop and disseminate SOPs, and best practice methods that minimise biodiversity adverse impacts of economic and other activities.	★	●	●				●	●	●	●				
	Facilitate interagency and stakeholder discussions to identify other methods to improve biodiversity outcomes.	★	●	●			●	●	●	●	●				●
<b>Cumulative impact of resource consents on biodiversity</b>	Assess the cumulative impacts of activities authorised by GW and TA resource consents on regional biodiversity and identify processes to prevent adverse biodiversity effects.	★	●			●	●	●	●	●					