The Island Strategy

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GUIDELINES FOR MANAGING ISLANDS ADMINISTERED BY THE DEPARTMENT OF CONSERVATION

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1. Introduction

1.1 BACKGROUND AND PURPOSE

Across the world, islands contribute vastly more to biodiversity for their area than equivalent sites on the mainland. This is particularly so in New Zealand where, because of our evolutionary history, post-human land-use changes and the effects of invasive species, islands have become critical biological and cultural storehouses. Our islands are highly vulnerable but, as history has shown, they also provide conservation opportunities not available on the mainland, and have been the saving of many unique species and biological communities (Bellingham et.al, 2010). New Zealand's status as a biodiversity hot-spot means that the protection and management of our islands is of global importance.

In 2006, the Parties to the Convention on Biological Diversity (CBD) agreed to implement a Programme of Work on Island Biodiversity. Amongst the actions adopted was the need to *Develop and implement integrated policies and measures to conserve key terrestrial and marine ecosystems, habitats important for island biodiversity, societies and economies, taking into account the close ecological links within and between island marine and terrestrial ecosystems*.

This Strategy contributes to that commitment and, in doing so, guides the overall management of islands towards the range of goals that the Department of Conservation (DOC) is working to reach. It also provides a nationally consistent classification for islands. This allows DOC to quantify the range of island assets it manages based on their legal status, values, threats and opportunities.

The Department of Conservation manages hundreds of islands within the New Zealand archipelago. These provide unique opportunities to maintain island ecosystems that are in 'good condition', improve the state of those that have been degraded, create sanctuaries for protected species where mainland populations are threatened, and protect their rich natural and historic heritage.

Islands managed by DOC provide opportunities for New Zealanders to experience the richness of island ecosystems, engage in their restoration, and enjoy the unique geographical and cultural identity of these places.

Tangata whenua have a special relationship with ka motu (islands). Islands have been, and still are a source of mahinga kai (resources) and were used for many purposes, including security and burials. Many of the islands managed by DOC are under Treaty

claim and require appropriate arrangements to create opportunities with iwi and hapu to achieve conservation outcomes.

Our broad goals are to maintain and improve the healthy function of island ecosystems and create opportunities for the community to participate in that work. A consistent approach to island management will ensure that DOC clearly identifies and communicates priorities, resources the work appropriately, and demonstrates progress toward outcomes. This integrated approach to island management should provide a framework for DOC staff working with iwi, community and other stakeholders in order to establish shared management goals.

Most of the islands managed by DOC are classified into reserve types under Acts that were historically associated with three different government departments. In some cases, specific island categories defined under one Act have an equivalent category within another. The Strategy aims to reduce this potentially confusing situation by defining the appropriate management priorities for the various types of island reserves.

The Island Strategy sits within the Department's statutory planning and outcome frameworks. These are articulated in the Conservation General Policy and National Park Policy and also in the Department's Strategic Direction (vision, purpose and strategic approach). DOC's Statement of Intent (SOI), describes how outcomes set out in its Strategic Direction will be delivered over a five year timeframe. The Island Strategy then provides a framework by which to deliver on the SOI outcomes described across natural and historic heritage, recreation, engagement and business opportunities, translated specifically for island ecosystems.

Priorities for island management will be determined by both the Natural Heritage Management System (NHMS) as part of its ecosystem and species optimisation processes, and by priorities recognised locally by managers and communities of interest through Conservation Management Strategies (CMS). The strategy will thus act as a tool for strategic and long-term planning.

In sum, this Strategy meets many requirements. However, it has three core goals:

- Provide a nationally consistent planning tool for long-term strategies
- Reduce confusion caused by different legal land designations based on different statutes
- Clarify the goals of management within these land designations so that the effectiveness of actions undertaken can be assessed

1.2 DEFINITIONS

An island is defined as any area of land that supports terrestrial communities and is permanently surrounded by water. This includes:

- Offshore and nearshore islands—that have been connected to the mainland in recent geological history
- Outlying islands—that have never been connected or lost contact with the mainland millions of years ago
- Islands in mainland lakes and rivers

This definition excludes tidal islands and sandbanks connected to the mainland (even if only periodically), and also excludes ephemeral islands in rivers and islands that solely support marine communities. Wildlife enclosures or intensively pest-controlled sites on the mainland are also excluded.

Healthy ecosystems are defined as as those with the highest possible contribution by indigenous plants and animals to their structure and function, i.e. with the greatest possible ecological integrity.

Ecological integrity is defined by Lee et al. (2005) as: "the full potential of indigenous biotic and abiotic features, and natural processes, functioning in sustainable communities, habitats and landscapes". This definition is a fundamental part of the biodiversity assessment framework that will be applied here to island management (see Section 3) and is now the basis for measures of condition in reports through the SOI.

2. Context for the Island Strategy

2.1 OVERVIEW OF ISLANDS AND THEIR MANAGEMENT

Islands managed by DOC extend over 23 degrees of latitude, from the cool temperate subantarctic islands (including the Campbell, Auckland, Antipodes, Bounties and Snares groups which extend approximately 600 kilometres to the south of the South Island), to the warm temperate islands of the Kermadecs, located 1000 kilometres north-east of the North Island coast. More than a third of the islands DOC manages are located within World Heritage Sites, with a further 65 proposed for inclusion (DOC, 2006).

The New Zealand archipelago is recognised globally as a hotspot of biological diversity (Myers et al., 2000). Many of its organisms, including an exceptional range of land snails, insects, lizards and seabirds, are found nowhere else.

There are two kinds of islands in New Zealand waters. Firstly, outlying or oceanic islands (for example, the Chatham, Snares, Kermadec and Three Kings Islands) have either never been in contact with another land mass, or lost contact millions of years ago. Due to their long isolation, these oceanic island groups have many distinctive plants and animals, including endemic species, and are of high international significance. The second type of islands are continental or land bridge islands (offshore and nearshore) that have relatively recently been connected to the mainland during periods of lower sea level (for example Takapourewa/Stephens and Kapiti Islands). More than 80% of New Zealand's islands are continental islands distinctive for their high biodiversity, and they often contain unusual combinations of species no longer found on the mainland. In addition, there are a number of significant islands in lakes along with some in rivers.

Islands occupy only 3% of the land area of the planet, yet contain a disproportionately high share of global biodiversity, including 45% of all critically endangered species. All island species are at risk —more than 60% of species have suffered extinctions, primarily due to the invasion of exotic organisms (King, 1984). Rats, the most widespread exotic vertebrate, have reached about 90% of the world's island groups (Atkinson, 1985).

New Zealanders regard islands as important for cultural reasons and for recreation. The high level of community involvement in many restoration programmes reflects this interest. Iwi interest is strong, and is expressed through established ownership, partnerships in current management and in Treaty of Waitangi claims over many islands. Practically, this interest is also manifested through traditional use such as for kaimoana. Commercial and private interests include ecotourism, and transport services to and from most of the islands managed by DOC.

DOC staff have become increasingly adept at eradicating weeds and pests from islands, including the unprecedented eradication of rats from Campbell Island, confirmed in 2003 (DOC website). Eradications have produced spectacular benefits for indigenous biota (Towns et al., 2009), and many New Zealand islands are seen as international showcases of successful conservation in action. The mammal-free island ecosystems provide important benchmarks for restoration on mainland New Zealand and on offshore islands that have been invaded. They can also serve as model systems for understanding how biological invasions affect community structure and ecosystem function on the mainland. For example, Little Barrier Island/Hauturu has more than 400 species of plants that form communities unmodified by browsing mammals (such as deer and possums), as well as the most complete remaining assemblages of honey and nectar feeding birds.

Islands have an important role in the identity of New Zealand and its people. Islands provide a dramatic backdrop to mainland

landscapes and some, such as Rangitoto Island in the Hauraki Gulf, are visual icons. Most have important historic and cultural heritage, with many having a long history of human settlement representing different facets of human endeavour. Islands are attractive and highly valued destinations for recreational use and outdoor activity, for example for boating, camping, walking and passive enjoyment.

Increasingly, islands provide opportunities for the general public and communities to connect with the special values that they represent, and to experience ecosystems and species no longer present on the mainland. These experiences are priceless both for the individual visitor and to engender support for conservation amongst the public. Community participation programmes also do much to contribute to conservation on islands. Hands-on island restoration programmes organised by DOC or promoted by community groups and 'friends-of' groups allow opportunities for people to understand, experience and contribute to important conservation work. The restoration programme undertaken by the Supporters of Tiritiri Matangi is a fine illustration of this, as is the Project Island Song initiative in the Bay of Islands.

In summary, islands need protection because they are critical storehouses for biodiversity and also because they represent great opportunities for DOC and the community to restore and sustain biological and cultural heritage.

2.2 LEGISLATIVE, STRATEGIC AND POLICY CONTEXT

2.2.1 Legal context

While the primary purposes for protecting DOC-managed islands are defined under, or affected by, at least five statutes including the Conservation Act 1987 (section 17C), most islands are classified under three: the Reserves Act 1977, the National Parks Act 1980 and the Wildlife Act 1953..

In 2005, a statement of General Policy was approved to provide a unified policy for the implementation of the range of Acts that DOC administers, including the Reserves Act and Wildlife Act. An allied General Policy was also prepared for the National Parks Act. These General Policy Statements provide guidance for the administration and management of all lands and waters, and for consistent management planning of these places through the preparation of conservation management strategies.

The management of historic and cultural heritage on islands must also take into account advice provided by the Ministry for Culture and Heritage as the Crown's principal adviser for cultural

heritage policy, along with the statutory roles of the Historic Places Trust under the Historic Places Act 1993.

Other Acts that have local application can also affect the Department's activities. These include the Hauraki Gulf Marine Park Act 2000, and the Ngai Tahu Claims Settlement Act 1998. A more detailed outline of the legal framework can be found in Appendix 1 (Table A1.1).

All islands in Te Wahipounamu and New Zealand Subantarctic Islands World Heritage Sites have been designated internationally as having 'natural properties of outstanding universal value'. This places additional responsibilities on management to protect 'natural habitats for *in situ* conservation of biological diversity'. It should be noted that despite these obligations under the World Heritage Convention, such a designation carries no statutory obligation—the reserve is bound by the legal requirements of its gazetted purpose, such as Nature Reserve.

As part of its commitments to the Convention on Biological Diversity (1993), the New Zealand Government has developed a New Zealand Biodiversity Strategy (NZBS). The purpose of this strategy is to establish a strategic framework for action to conserve and sustainably manage New Zealand's biodiversity. The priorities of the NZBS guide the natural heritage work the Department does and includes collaboration with other agencies in order to meet NZBS goals.

DOC also contributes to the special body of work under the Convention that recognises the significance of island biodiversity on a global scale (Convention on Biological Diversity, 2006). This Programme recognises the uniqueness of island ecosystems and focuses on reducing biodiversity loss and managing the use of islands in a sustainable manner. As a contributing party to this initiative, DOC is obligated to implement it (where possible) via its own national island work.

The Island Strategy provides an umbrella framework for consistently managing islands while taking account of the complexity of biological, cultural and legal factors affecting them.

2.2.2 Strategic and policy context

Within the framework of legislation described above, and taking account of Government priorities and Departmental statutory policy frameworks, the DOC Statement of Intent (SOI) describes how it intends to deliver on the outcomes set out in its Strategic Direction (vision, purpose and strategic approach), over a five year timeframe. In its Strategic Direction, DOC expresses its overall outcome statement as; "New Zealanders gain environmental social and economic benefits from healthy functioning ecosystems, from recreation opportunities, and from living our history". A

series of intermediate outcome statements describes the way the Department intends to work to deliver on its broader goals and to allow measurement of progress and success. These outcome statements encompass the following broad areas of responsibility:

- The diversity of our natural heritage is maintained and restored;
- Our history is protected and brought to life;
- More people participate in outdoor recreation;
- More people engage with conservation and value its benefits;
- More business opportunities delivering increased economic prosperity and conservation gain.

The Island Strategy and its island classification framework broadly align with the intermediate outcome statements, providing the direction for its work and the framework against which to measure and report progress.

2.2.3 Management context

Without clear objectives it is difficult to define criteria for measuring the effectiveness management interventions (Christensen, 2003) and to report on progress towards outcomes. Quantifiable information on progress enables local managers to assess the effectiveness of management for each island or group of islands. This, in turn, helps them to further develop plans for maintenance or restoration that integrate across work areas, natural and historic heritage, recreation, engagement and business opportunities and across funding streams (national and local). As restoration and maintenance of island ecosystems are often projected over very long timeframes (100–500 years), it is essential that long term management outcomes and objectives are articulated in a plan that endures well beyond the tenure of current staff.

The framework for assessing progress for biodiversity is the Natural Heritage Monitoring System (NHMS), which provides nationally consistent criteria for progress.

This Strategy ensures that management of island biodiversity is aligned with NHMS and provides quantified measures of success.

2.3 RELATIONSHIPS WITH MÄORI AND THE TREATY OF WAITANGI

Tangata whenua have a special relationship with ka motu (islands). Islands have been, and still are a source of mahinga kai (resources) and were used for many purposes, including security

and burials. Many of the islands managed by the Department belong to tangata whenua or are subject to Treaty claim.

The Department recognises the role of tangata whenua as kaitiaki (guardians) and acknowledge their mana whenua—the special relationship that they have with the land and its resources. DOC gives effect to the Treaty of Waitangi by continuing to work with tangata whenua on island management initiatives (including islands subject to claim) to ensure that due consideration is given to Treaty partners' input into management decisions that achieve outcomes to benefit Mäori and benefiting conservation. Treaty settlements, other management agreements or memoranda and statutory plans (including conservation management strategies and/or plans for management) are key tools to facilitate shared decision-making.

There are numerous examples of DOC and tangata whenua working cooperatively on island management to achieve positive outcomes for conservation (often supported by formal management agreements and plans). These include Tuhua Island in the Bay of Plenty, and Open Bay Islands on the West Coast of the South Island.

The DOC general policy indicates that the customary use of traditional materials and indigenous species may be allowed on a case-by-case basis where there is an established tradition of such use; it is consistent with all relevant Acts, regulations, and National Park management plans; the preservation of the species involved is not adversely affected; the effects of use on National Park values are not significant; and tangata whenua support the application.

The Island Strategy will provide nationally consistent guidelines for islands under co-management agreements with iwi and ensures that they are managed in ways that are consistent with the values of each site.

2.4 PARTNERSHIPS AND PRIVATELY-OWNED ISLANDS

While DOC manages upward of 700 islands around New Zealand, there are also many privately-owned islands. The uses of these private islands are many and varied, including private retreats, farms, cultural harvest, forestry operations, tourism ventures and private protection projects. Some of these islands also have significant conservation values. While recognising landowners' rights on their own land, where possible, DOC will pursue opportunities to work with them to maintain or enhance conservation values.

DOC has responsibilities under the Wildlife Act 1953 and the Resource Management Act 1991, which apply to privately-owned islands in some instances. These include advocacy for, management of (where appropriate), and protection of native species and ecosystems. In addition, unless authority is delegated to another

agent, private islands designated as Wildlife Sanctuaries (under the Wildlife Act) require DOC to administer the relevant provisions of that Act.

DOC works with other government agencies such as Maritime New Zealand, Metservice, Ministry of Defence, Ministry of Fisheries, and Biosecurity New Zealand as required.

The Island Strategy will provide a framework for classifying privately owned islands as appropriate, and thereby defining DOC's obligations where the owners reach formal management agreements with the Department. It also ensures that the natural, cultural and historic values of sites are highlighted to partner agencies.

3. The Island Strategy in action: classification framework and objectives of work

3.1 INTRODUCTION TO CLASSIFICATION

A national approach to island management using functional management categories was first proposed by Atkinson (1990) and a sample system was provided by Atkinson and Towns in the same publication. The system identified five categories of islands and defined management goals for each. Southland Conservancy used these categories for three CMS documents (DOC 1997, 1998a,b). Managers found that the system was easy to apply even though the conservancy managed large numbers of islands. It helped with planning long term management goals across numerous islands with similar uses, highlighted the values of specific sites, was sufficiently flexible to identify sites where specific management effort was needed, and also identified sites where statutory land classification was poorly aligned with current management (A. Cox, pers comm.). Despite its usefulness, this early system did not explicitly take account of legal classification of islands and is not aligned to the strategic direction that DOC has now has adopted.

The revised framework provided here enables islands to be categorised for management based on their legal status and natural, historic/cultural values and recreational potential. Objectives for work are defined for each of six categories that form the island classification framework, thus setting out nationally consistent guidelines for management.

The first three categories of the island classification framework are **Minimum Impact**, **Ecosystem Recovery and Ecosystem Restoration**. These categories are primarily focused on maintaining and restoring healthy functioning ecosystems to the highest levels possible and the protection of cultural heritage. These usually comprise islands protected as Nature Reserves, Wildlife Sanctuaries, Special Purpose Reserves in National Parks, and some Scientific Reserves. Access to these islands is generally subject to restriction.

Minimum Impact islands are relatively unmodified, with high ecological integrity. These islands require a minimum level of management intervention but ongoing protection from human impact;

in fact for the most part they should be the least visited islands that the Department manages. Examples might include: Middle and Green Islands (Mercury Islands), Pupuha, Muriwhenua, Sail and Bream (Bream Bay Islands), Snares Islands.

Ecosystem Recovery islands have high levels of ecological integrity and are in a process of natural recovery from limited disturbance, such as fire or the introduction of exotic organisms. Once the disturbance has been removed, limited intervention is required to support 'natural' recovery as compared with the Ecosystem Restoration category. Examples might include: Aorangi (Poor Knights), Ruamahua-nui Island (Aldermen).

Ecosystem Restoration islands have relatively high levels of ecological integrity. However, a much greater level of management intervention is required to restore the island to a healthy functioning state. Ecosystem Restoration islands would typically have been subject to multiple disturbances and require significant investment in planning and resources to facilitate the restorative process. Examples might include: Whatupuke and Coppermine Islands (Hen and Chickens), Whenua Hou/Codfish Island, Takapourewa/Stephens Island.

The second group of island categories of the classification framework are described as **Special Character**, **Open Sanctuary** and **Multiple Use**. While it is important to maintain and restore healthy functioning ecosystems together with protecting cultural heritage, these categories of islands provide for a much broader range of management options than those previously described. These islands are usually protected within National Parks, or as Scenic Reserves, Recreation Reserves, some Scientific Reserves, Historic Reserves, Wildlife Refuges and Wildlife Management Reserves. Opportunities for community engagement and participation, largely unrestricted public access, recreation opportunities and concessions are provided for in most instances.

Islands in the **Special Character** category typically include those islands that may relatively high ecological values, but that are likely to have been reserved more specifically for other purposes such as landscape, geo-preservation, scientific or cultural/historic values. These reserves are open to the public and communities, offering opportunities to visit with few restrictions for research, education, participation and enjoyment. Examples might include: Goat Island, Moturemu Island.

Islands included in the **Open Sanctuary** category are likely to be heavily modified by past uses, for example farming. Management may include extensive reintroductions of missing components of flora and fauna using plantings and species from elsewhere, and may include out-of-range species. The community is likely to have an involvement in restoration of such islands, with opportunities for access, recreation and commercial opportunities. Examples might include: Tiritiri Matangi Island, Ulva Island and Matiu Somes Island.

Multiple Use islands which are often heavily modified by previous management regimes have a much greater emphasis on public access for recreation and outdoor activities, community engagement and involvement in restoration programmes. While protecting and restoring island ecosystems may be an important outcome, this may be secondary to the purposes of the reserve classification which is most likely to focus on scenic, recreation or historic values. Examples might include: Browns Island, Motuihe Island.

3.2 MANAGEMENT OBJECTIVES

Within each island category, an overall outcome and a suite of objectives for management are identified covering the range of conservation management issues common to island management. These are described in this document as the 'management objectives'. They provide a linkage between the island classification (outcomes sought) and the Biodiversity Assessment Framework: Outcomes and Performance Assessment framework, presented in Lee et al. (2005) and the basis of NHMS monitoring framework. Performance can be assessed both within island categories and across the classification using a suite of indicators, thus linking monitoring measurements, intermediate outcomes, management objectives and outputs with conservation activities.

The following section outlines the management objectives (listed below) and the key focus of this work, including monitoring and research.

3.2.1 Maintaining ecosystem processes

Ecosystem processes transfer energy and matter from one pool to another, largely as a result of interaction between organisms (biota) and their environment. The key processes involving organisms are primary productivity, decomposition, competition, herbivory or predation. Important abiotic aspects include, for

example, nutrient cycling and water yield. Collectively these are fundamental characteristics of all ecosystems and changes in the rate of any particular process indicate alterations in pool sizes and can enable predictions about the future of the ecosystem. If critical processes fail or are substantially altered, the ecosystem will be degraded or potentially lost (Lee et al., 2005).

There are relatively few islands in New Zealand where ecosystem processes are dominated by indigenous plants and animals. These islands require effective protection to ensure ecosystems are maintained and not subject to change, for example by invasion of predators. Islands where ecosystem processes have been degraded may require assistance to either support their natural recovery or more active intervention to remove or control threats and restore habitat, or reintroduce species that have been lost.

It is necessary to distinguish between sites where ecosystems with high ecological integrity will be protected, and sites where ecosystems have been degraded and should be restored. It is also important to clarify the processes (natural or assisted recovery) and species that would be part of this restoration initiative.

The focus of this work includes:

- Removing exotic species that disrupt ecosystem processes or threaten continued indigenous dominance.
- Managing fire, disease, water quality and yield.
- Restoring ecosystems that have been altered, transformed, degraded or lost.
- Identifying those indigenous species that can improve the ecological integrity of island ecosystems and, where appropriate, enable their natural or assisted re-colonisation in order to re-occupy their full environmental range.

3.2.2 Reducing the spread of exotic plants and animals

Invasions of islands by exotic organisms have been a major cause of biodiversity loss, often reflected in local extinctions of indigenous species. Many exotic species of animals and plants have been successfully eradicated from islands undergoing ecosystem restoration, and from islands being used as sites to manage threatened species. These efforts would be jeopardised if these pests and weeds were to re-establish.

Exotic organisms can spread naturally or accidentally through poor management or ineffective implementation of biosecurity procedures. Biosecurity systems must be applied to prevent the spread of new pests and the reintroduction of those previously removed.

The focus of this work includes:

- Managing the distribution and abundance of exotic species (weeds and pests), especially those that disrupt ecosystem

processes and threaten continued indigenous dominance through eradication, reduction or containment programmes.

- Undertaking surveillance programmes to detect invasions of islands by exotic species.
- Managing incursions by exotic species to ensure they do not threaten indigenous dominance.

3.2.3 Preventing declines and extinctions

Preventing extinctions and population decline or loss is fundamental for securing and maintaining biodiversity. Islands may provide important refugia for many species now extinct on the mainland and some endemic species.

The focus of DOC's threatened species work is to secure and recover self-sustaining populations of unique species that are at greatest risk of extinction, in which islands play a key role. Once populations are secured, options may be available to return species into their former range on the mainland. For some islands, the introduction of threatened species outside their natural range may also be an option, where management on the mainland is difficult or ineffective.

The focus of this work includes:

- Reintroducing mainland or island species to sites in their former range as part of ecosystem recovery and to increase the ecological integrity of islands.
- Confirming islands that can be used to assist with the recovery of species outside their former range.
- Confirming island species that might be translocated to other sites as part of recovery and restoration programmes.
- Where permitted, managing mainland species that are threatened with extinction.

3.2.4 Improving ecosystem composition

Species diversity, functional diversity and structural complexity describe aspects of the composition of ecosystems. For example, the species composition of a plant community that has developed on a given island is the outcome of seed source, specific adaptations of the plants to island conditions (e.g. soil nutrient and moisture status), competitive interactions, and an element of chance over which species arrived and which ones extablished. The vegetation structure within a particular ecosystem is a reflection of the successional stage and disturbance (e.g. fire, flooding, and windthrow). Composition is specifically focused on the species that compose the ecosystem rather than their relative abundance, and in this context reinforces the need to ensure that all indigenous taxa have a safe haven. While exotic species may be present, it is the extent to which their presence affects the maintenance of the indigenous components that is of concern.

The focus of this work includes:

- Removing exotic species that impact ecosystem composition or threaten continued indigenous species occupancy.
- Identifying those indigenous species that can improve the ecological integrity of island ecosystems and, where appropriate, enable their natural or assisted re-colonisation in order to re-occupy their full environmental range.
- Restoring ecosystems that have been altered, transformed, degraded or lost; through translocation and management of indigenous species.
- Monitoring composition and structure.

3.2.5 Forming partnerships with tangata whenua

Many islands have a particular importance for tangata whenua, encompassing a range of attributes and values. It is essential to foster and develop positive working relationships with tangata whenua in order to achieve island management objectives and outcomes for Mäori.

The focus of this work includes:

- Seeking and taking into consideration views and aspirations when making decisions about the classification of islands and their management. Developing effective working relationships to facilitate the appropriate level of engagement of all parties.
- Developing opportunities to work with Mäori island owners to promote protection and restoration opportunities that support beneficial outcomes for both the owners and conservation.
- Determining whether islands are subject to Treaty of Waitangi claim and understanding the history of acquisition by the Crown.

3.2.6 Preserving historic and cultural values

Conservation of sites of cultural and historic interest is important on islands assessed to be of high significance, in order to protect these resources from avoidable harm. Identification of these places will be guided by the Department’s Historic Heritage Strategy, policy, procedures and best practice guidelines, and by conservancy heritage protection plans.

Many of New Zealand’s islands have a rich cultural and historic heritage, having played many and varied roles in this country’s social history. In the north of New Zealand, islands were the first points of arrival for Mäori — some were visited as temporary refuges, while others were settled more permanently. Islands have many features or attributes that have led to their being occupied and valued. For example, islands offer many strategic advantages and natural defences, while climatic conditions and soil fertility often make them especially suitable for gardening.

European exploration and settlement saw new patterns of use develop, including farming and the occupation of sites for maritime navigation, military purposes, sealing and whaling operations, human quarantine and as a temporary refuge for shipwreck victims. In some instances, whole islands or groups of islands may have cultural and historic value.

As a consequence of these broad and varied social interactions, many places of cultural and historic value are present on islands either managed by the Department or held in private ownership.

The focus of this work includes:

- Protection and maintenance of places of cultural and historic interest on islands in a manner consistent with both the purpose for which the reserve or protected natural area is held, and the ecological outcomes planned for the site.
- Managing historic and cultural sites as determined by the Department's planning and priority-setting frameworks for historic heritage, within the context of the island categories.

3.2.7 Fostering engagement, enjoyment and use

Islands are a recognisable and integral part of the landscapes of New Zealand's coast and lakes, and their rich histories are part of New Zealanders' national identity. Since the arrival of Mäori, they have been part of the story of colonisation in New Zealand (see 3.3.5). As such, islands and/or groups of islands have community histories that are significant both locally, and in the wider national context.

New Zealanders have a very strong social and cultural connection with many of the islands managed by DOC. It is therefore important that, where it is compatible with the primary purpose of an island reserve, communities have an appropriate level of access to visit, enjoy and where possible be involved in island projects. This includes opportunities to contribute to and participate in conservation initiatives, and to enjoy the distinctive recreation opportunities that islands can provide.

Commercial operators will be well placed to provide services such as transport and guiding on islands where this is appropriate. Commercial facilities such as telecommunication sites may often be appropriate.

In providing these opportunities, the Department can promote the benefits of conservation and build a shared sense of stewardship with communities and businesses.

Today, examples such as the restoration of Tiritiri Matangi Island in the Hauraki Gulf demonstrate the passion and commitment that communities have for the conservation of islands. Opportunities for the public to participate in conservation programmes, or to visit islands, are a very important part of developing an understanding and awareness of conservation.

The focus of this work includes:

- Building public awareness and understanding of island conservation, and providing opportunity (where appropriate) for people to contribute to the conservation work associated with islands.
- Providing appropriate levels of public access to the range of recreation and outdoor opportunities.
- Providing information and educational materials (in the best location and form) for visitors and educational groups, such as schools.
- Providing opportunities for concession activities or other commercial opportunities on islands where this is compatible with the islands' primary classification.

3.3 MONITORING

If we are going to report progress towards achieving outcomes then we need to use indicators that have a close relationship to our management objectives. As previously outlined in Section 3.2, the objectives of work provide an explicit linkage between the island classification and the Biodiversity Assessment Framework (Lee et al., 2005).

A hierarchy of indicators and measures that can be applied both locally and nationally will enable performance to be measured against both local level work plan programmes and higher level Departmental outcomes. Monitoring will be undertaken as part of DOC's optimised work prescriptions, as part of community-led projects or as part of the National Inventory & Monitoring Programme.

The island monitoring framework set out in Section 5 provides a standard approach for assessing status and trend in the health and functioning of island ecosystems and the effectiveness of the full range of management actions in achieving the desired results.

3.4 RESEARCH

Research is often one of the most intensive activities undertaken on islands, for diverse purposes and by a wide range of researchers. The outcomes of research can have significant benefit to the understanding of island ecosystems, as well as contributing to the broader conservation knowledge-base nationally and globally. Research is essential in order to inventory, measure and improve management outcomes for islands.

Due to the scale and extent of this work, and the fact that island research involves visiting (often for extended periods of time) some of the most vulnerable ecosystems DOC manages, the potential for impact is significant. It is essential that research activity

on islands is closely managed to ensure that the benefits outweigh the costs of visiting these reserves. Decisions on whether to allow research are therefore based on the following principles:

- Research undertaken on the island or islands is specific to that place and unable to be conducted on the mainland or an island of lower category.
- The benefits or value to that place (or wider island management programmes) must clearly outweigh the impacts or risks of undertaking the research.
- Risk assessment must be undertaken for each research application (for both external and DOC research). Risks assessed might include: environmental impacts; biosecurity; health and safety implications and the risk of fire.
- Research undertaken must support the management goals for the category of island, or contribute to wider understanding of island ecosystems, or inform global and regional issues that rely upon the special characteristics of that place.
- As part of an independent but related exercise an Island Research Strategy is in development. This strategy will identify the Department's key research themes and priorities (pers comm. Dave Towns, 2007) with the intention of focusing the research undertaken by DOC and other agencies on providing direct support for the key outcomes for island management. A strategy is also currently in place to guide research activities on New Zealand's subantarctic islands (West, 2005).

4. Island classification framework and its application

4.1 APPLYING THE CLASSIFICATION

All DOC-managed islands are to be classified according to their 'best fit' in a category. It is acknowledged that islands will not always easily fit within one of the six island categories and therefore determining the best match of key characteristics of the island and the island category will be necessary in some instances.

It is intended that existing condition, not future desired state, should drive the classification of islands, except where a short-term and defined programme of work (less than 2 years) is underway or required to shift an island into a different category. The process of classifying islands, while undertaken by each Conservancy, will be moderated nationally to ensure consistent application of the classification.

There will be situations such as Treaty negotiations where classification may need to be approached delicately or even deferred. There have been cases where the classification process has been useful for tangata whenua to better connect with the Department and a shared outcome has been achieved. Community consultation may be appropriate in this process.

4.2 PRIORITIES FOR MANAGEMENT

While the island classification will provide the strategic framework for the management of islands, the priority for management of islands will be determined in the first instance by Conservancies. Decisions about work will be based on both local priorities and the optimised work programme for species and ecosystems developed by the Natural Heritage Management System.

4.3 PRIVATELY OR IWI-OWNED ISLANDS

Privately-owned islands may be categorised using the island classification if the owners wish to embrace the principles of the classification. Islands where formal or informal management agreements are already in place may be good candidates for initial categorisation.

Privately or iwi-owned islands lie outside DOC jurisdiction except where responsibilities exist under the Wildlife Act, Resource

Management Act, or other local bylaws. Such islands could be classified within the framework above according to their degree of ecological integrity. There may be flexible arrangements outside these statutory requirements in order to maintain a working relationship between DOC and the island's owners and to safeguard their ecological values.

On privately or iwi-owned islands, conservation goals can be achieved only with an owner's consent. Therefore developing and maintaining good working relationships with the owners is critical.

4.4 CHANGING ISLAND CATEGORY AND RE-GAZETTAL OF LEGAL STATUS

Managers may deem it necessary to review the legal classification of an island, particularly if the original gazettal does not adequately reflect its current management objectives. An example may be where an island was originally gazetted under the Reserves Act as a Recreation or Scenic Reserve, but has since been restored to its original ecological condition. As such, its management purpose has changed to a significant degree, so it may be appropriate to consider re-gazettal to a reserve classification that more adequately reflects this; for example Scientific or Nature Reserve.

Careful consideration must be given to such a change, particularly if the original acquisition was for a specified purpose, as a new legal status is likely to change existing uses and potentially change access to an island. Public input is required as part of the statutory process of re-gazettal and must follow DOC process (DOC,2007).

In a similar manner, an island may need to be re-classified if its condition improves or declines to such an extent that it no longer fits the category to which it was previously assigned. While not a statutory process, changing the category should ideally be notified through either the conservation management strategy or plan process, to allow public input into the intended change or, if between plan review periods, specific consultation should be undertaken. In the first instance, an application for a category change will be made to the National Island Advisory Group who will review the proposed change prior to commencement of any public consultation.

4.5 DETAILS OF THE CLASSIFICATION

This section of the Island Strategy sets out the detail for the six island categories, outlining the legal purpose, management

outcomes and objectives of work for each category. The sections are numbered as follow:

4.5.1 Minimum Impact

4.5.2 Ecosystem Recovery

4.5.3 Ecosystem Restoration

4.5.4 Special Character

4.5.5 Open Sanctuary

4.5.6 Multiple Use

4.5.1 Minimum Impact category

Legal status:	Nature Reserves, Wildlife Sanctuaries or National Park (Special Purpose) islands.
Category outcome:	Relatively unmodified ecosystems with high ecological integrity are protected.
Purpose:	• To protect the most intact examples of indigenous flora, fauna or natural features for their ecological integrity, scientific interest, representativeness, rarity or uniqueness. • To use these islands as a benchmark for management elsewhere, and for measurement of long-term change.
Key criteria:	• No previous history of mammalian pests (or minimal impact from past exposure). • Few weeds or non-mammalian pests. • Often relatively small, may be heavily burrowed by seabirds and consequently vulnerable to damage. • Beyond the normal natural dispersal range of all vertebrate pests or within swimming range but pests fail to establish.
Access:	• Entry permits are required for all visitors, with the exception of DOC staff carrying out approved work programmes. • Ensure minimal visits to avoid compromising island values.

Objectives of work	
1. Maintain ecosystem processes	Minimum Impact islands exhibit the highest levels of ecological integrity in the New Zealand archipelago. They need particularly effective protection against exotic species and inappropriate management, including inappropriate

	introductions of indigenous species.
• Fire	• No fires are permitted under any circumstances. • Extremely high priority for response if a fire occurs. • Have pre-suppression plans in place and emergency response biosecurity procedures.
• Pollutants	• Highest priority to use statutory planning and legal mechanisms to regulate traffic and reduce the likelihood of a spill. Should a spill occur then apply the requirements of the NZ Maritime Oil Spill Response Strategy. • Consider options to pursue compensation for the loss of threatened wildlife where the remoteness of an island prohibits practicable toxin clean-up.
• Disease surveillance	• High priority—response should be based on the risk profiles of the intervention being managed. • All translocations and health surveillance to follow the DOC Wildlife Health Surveillance standard operating procedure (Health Management of Terrestrial Vertebrate Species Protected under the Wildlife Act).
• Management facilities	• All buildings and/or structures should be temporary and where necessary used in order to minimise the impact of management. They must be located where their impacts can be kept to a minimum and of a standard suitable for the duration of management or research programme being undertaken.
2. Reduce dominance and spread of exotic organisms	• Prevent the spread of exotic plants and animals to island ecosystems. • Eliminate exotic organisms that threaten island ecosystems.
• Incursions	• As far as possible, eliminate all incursions by exotic species, subject to the control being less damaging to indigenous species and ecosystems than the incursion.
• Pest and weed	• Apply a high level of surveillance to prevent exotic plants and animals from

surveillance	becoming established. • Identify any existing exotic species (weeds and animal pests) that disrupt ecosystem processes and threaten the continued dominance of indigenous species and manage appropriately. • Eliminate all existing populations and new incursions of exotic species to the extent that the control is less damaging to the species and ecosystems than the incursion.
• Biosecurity	• Apply the highest level of biosecurity standards in accordance with the Island Biosecurity standard operating procedure and/or its application through Conservancy Island Biosecurity Plans.
3. Prevent declines and extinctions	Ensure that change in the geographic range of species endemic to Minimum Impact islands is not human induced.
• Translocation	• No new organisms, including indigenous species, may be imported. • A Minimum Impact island may provide source populations of plants or animals for translocations to other sites, as long as this does not compromise the ecological integrity of the site. • May include removal of species historically translocated that are deemed to be inconsistent with defined management objectives. • All translocations must comply with the Translocation SOP.
• Intervention	• Cause minimal intervention or interference to plant and animal communities.
4. Improve ecosystem composition	• Maintain the biotic mix of species characteristic of these island ecosystems. • Measure structure and composition of communities.
5. Partnership with tangata whenua	• Work with tangata whenua to ensure due consideration is given to Treaty partners' views to ensure the highest standards of ecological integrity are maintained and

	cultural values respected. • Develop and foster effective working relationships with iwi.
6. Historic and cultural values	• Preserve historic and cultural places of high significance while ensuring the highest levels of biosecurity and ecological protection are maintained. • Ensure minimal management visits to avoid compromising island values. • Protect historic and cultural values according to the Historic Heritage Protection SOP
7. Engagement, enjoyment and use	
• Community participation	• Deepen community understanding and support for the very high level of protection given to Minimum Impact islands. • Engender public support through means other than visits. • Allow some visits by targeted special interest groups (under permit and accompanied by DOC staff) for activities that are likely to engender public support (e.g. the making of a natural history documentary), subject to maintaining the highest levels of biosecurity and environmental protection.
• Education and interpretation	• Make people aware of the value of Minimum Impact islands, and the necessity for their high level of isolation and protection. • Provide information and educational materials off-site. • Permit visits for filming or photography for interpretive material (under permit and accompanied by DOC staff).
• Recreation, tourism and outdoor activity	• Visits for recreational, tourism or outdoor activity are not permitted.
• Research	• Research should be carried out on a minimum impact island only if it cannot be successfully carried out on any other category of island. • Researchers shall be encouraged to

	pursue research that assists, or is consistent with, the primary goals of protection, biosecurity and ecosystem monitoring. • The benefits for ecological integrity from the research must outweigh any adverse effects. • Risk assessment shall be carried out before any research is approved. Refer to DOC's High Impact Research Application procedure. • Research results must be made available to DOC. • Indicators to monitor visitor use must be identified and monitored.
• Concessions, telecommunications and other utilities	• Concessions should only be granted where they are likely to engender public support for the conservation of these islands, for example the making of a natural history documentary. All visits must be accompanied by DOC staff and subject to maintaining the highest levels of biosecurity and environmental protection. • No new structures (e.g. weather stations, telecommunication facilities, lighthouses) should be located on Minimum Impact islands.

4.5.2 Ecosystem Recovery category

Legal status:	Nature Reserves, Wildlife Sanctuaries, National Park (Special Purpose) islands.
Category outcome:	Limited disturbance ecosystems with high ecological integrity that are undergoing natural recovery are protected.
Purpose:	• To improve ecological integrity by supporting the 'natural' recovery of these island ecosystems. • To provide benchmarks for management elsewhere, and for measuring long-term change, including succession.
Key criteria:	• Modified previously by habitat loss (e.g. fire) and the introduction of exotic organisms that have since been removed or can be removed. • Minimal intervention is required to support the natural recovery of the ecosystem. • Few weeds or non-mammalian pests. • No mammalian pests or minimal impact from mammalian pests. • Provides examples of indigenous flora, fauna or natural features that are rare, representative, unique or otherwise of high scientific interest. • Varied in size, but retain sufficient elements of the original fauna and flora for these to recover without translocations from elsewhere. • Largely beyond the natural dispersal range of all vertebrates pests.
Access	• Entry permits are required for all visitors, with the exception of DOC staff carrying out approved work programmes. • Access may be limited according to an island's size and vulnerability, or in order to meet management goals.

Objectives of work	
1. Maintain ecosystem processes	On Ecosystem Recovery islands, interventions will only be to the extent necessary to protect, maintain and recover the highest attainable levels of ecological integrity and the dominance of indigenous species.
• Fire	• Fires are not considered appropriate. • Extremely high priority for response if a fire occurs. • Have pre-suppression plans in place and emergency response biosecurity procedures.
• Pollutants	• Highest priority to use statutory planning and legal mechanisms to regulate traffic and reduce the likelihood of a spill. Should a spill occur then apply the requirements of the NZ Maritime Oil Spill Response Strategy. • Consider options to pursue compensation for the loss of threatened wildlife where the remoteness of an island prohibits practicable toxin clean-up.
• Disease surveillance	• High priority—response should be based on the risk profiles of the intervention being managed. • All translocations and health surveillance to follow the DOC Wildlife Health Surveillance standard operating procedure (Health Management of Terrestrial Vertebrate Species Protected under the Wildlife Act).

• Management facilities	• All buildings and/or structures should be temporary and where necessary used in order to minimise the impact of management. They are to be located where their impacts can be kept to a minimum and of a standard suitable for the duration of the research programme being undertaken.
2. Reduce dominance and spread of exotic organisms	• Prevent the spread of exotic plants and animals to island ecosystems. • Eliminate exotic organisms that threaten island ecosystems.
• Pest and weed surveillance	• Apply a high level of surveillance to prevent exotic plants and animals from becoming established. • Identify any existing exotic species (weeds and animal pests) that disrupt ecosystem processes and threaten the continued dominance of indigenous species and manage appropriately. • Eliminate all existing populations and new incursions of exotic species to the extent that the control is less damaging to the species and ecosystems than the incursion.
• Incursions	• As far as possible, eliminate all incursions by exotic species, subject to the control being less damaging to indigenous species and ecosystems than the incursion.
• Biosecurity	• Apply the highest level of biosecurity standards in accordance with the Island Biosecurity standard operating procedure and/or its application through Conservancy Island Biosecurity Plans.
3. Prevent declines and extinctions	Ensure that the change in geographic range of species endemic to Ecosystem Recovery islands is not human induced.

• Translocation	• All translocations must comply with the Translocation standard operating procedure. • Allow reintroduction of species no longer present but known at the site historically. May include analogue species to replace related extinct taxa. • No new species will be imported. • May include removal of species historically translocated that are deemed to be inconsistent with defined management objectives. • The dominance of indigenous species should increase through natural processes. • An Ecosystem Recovery island may provide source populations of plants or animals for translocations to other sites, as long as this maintains the ecological integrity of the donor site(s).
Intervention	• As required for the purposes of recovery.
4. Improve ecosystem composition	• Maintain the biotic mix of species characteristic of these island ecosystems. • Measure structure and composition of communities. • Measure species recolonisations.
5. Partnership with tangata whenua	• Work with tangata whenua to ensure due consideration is given to Treaty partners' views, subject to maintaining the highest standards of ecological integrity. • Seek iwi views and respect iwi cultural values. • Develop effective working relationships with iwi.

6. Historic and cultural values	• Preserve historic and cultural places of high significance while ensuring the highest levels of biosecurity and ecological protection are maintained. • Ensure minimal management visits to avoid compromising values. • Protect historic and cultural values according to the Historic Heritage Protection SOP
7. Engagement, enjoyment and use	
• Community participation	• Foster community support for the high level of protection given to Ecosystem Recovery islands. • Engender public support through means other than visits. • Allow some visits by targeted special interest groups (under permit and accompanied by DOC staff) for activities that are likely to engender public support (e.g. the making of a natural history documentary), subject to maintaining the highest levels of biosecurity and environmental protection.
• Education and interpretation	• Make people aware of the value of Ecosystem Recovery islands and the necessity for their high level of isolation and protection. • Provide information and educational materials off-site. • Permit visits for filming or photography for interpretive material (under permit and accompanied by DOC staff).
• Recreation, tourism and outdoor activity	• Visits for recreational, tourism or outdoor activity are possible, but considerable restrictions may apply. • No structures may be built or introduced for the purposes of recreation and tourism visits.

• Research	• Research should be carried out on an Ecosystem Recovery island only if it cannot be successfully carried out on an island with a lesser degree of ecological integrity. • Researchers shall be encouraged to pursue research that assists, or is consistent with, the primary goals of protection, biosecurity and ecosystem monitoring. • The benefits for ecological integrity from the research must outweigh any adverse effects. • Risk assessment shall be carried out before any research is approved. Refer DOC's High Impact Research Application procedure. • Indicators to monitor research activity must be identified. • Research results must be made available to DOC.
• Concessions, telecommunications and other utilities	• Concessions on Ecosystem Recovery islands shall only be allowed for low impact activities consistent with the management intent for the island. Strict operating conditions are likely to apply and effects of activities should be closely monitored. • No new structures (e.g. weather stations, telecommunication facilities, lighthouses) should be located on Ecosystem Recovery islands. Any maintenance or enhancement of an existing facility must be achieved within its existing footprint. • Consideration may be given to structures required in the national interest.

4.5.3 Ecosystem Restoration category

Legal status:	Nature Reserve, Wildlife Sanctuary, some Scientific Reserve or National Park islands.
Category outcome:	To restore ecosystems to high levels of ecological integrity by assisting their recovery from multiple disturbance.
Purpose:	• To improve ecological integrity by assisting restoration on islands which provide examples of indigenous flora, fauna or natural features that are rare, unique, representative or otherwise of significant scientific interest. • To re-introduce missing species to islands that lie within the species' known natural range.
Key criteria:	• Modified previously by habitat loss (e.g. through fire) and/or the introduction of exotic organisms that have since been removed. • Islands that retain many elements of their original fauna and flora, but are missing key components that can be reintroduced by translocations from elsewhere. • Largely beyond the natural dispersal range of all vertebrates pests.
Access:	• Entry permits may be required for visitors, with the exception of DOC staff carrying out approved work programmes. • Access may be limited according to an island's size and vulnerability, or in order to meet management goals.

Objectives of work	
1. Maintain ecosystem processes	Ecological Restoration islands need active intervention to protect, maintain and restore the highest attainable levels of ecological integrity and the dominance of indigenous species.

• Fire	• Fires may only be lit under permit. • High priority for response if a fire occurs.
• Pollutants	• Highest priority to use statutory planning and legal mechanisms to regulate traffic and reduce the likelihood of a spill. Should a spill occur then apply the requirements of the NZ Maritime Oil Spill Response Strategy. • Consider options to pursue compensation for the loss of threatened wildlife where the remoteness of an island prohibits practicable toxin clean-up
• Disease surveillance	• High priority—response should be based on the risk profiles of the intervention being managed. • All translocations and health surveillance to follow the DOC Wildlife Health Surveillance standard operating procedure (Health Management of Terrestrial Vertebrate Species Protected under the Wildlife Act).
• Management facilities	• Buildings and/or structures may be constructed, and existing ones maintained (both permanent and temporary). • To minimise disturbance, any such buildings or structures must be the minimum necessary to support island management and work programmes.
2. Reduce dominance and spread of exotic organisms	• Prevent the spread of exotic plants and animals to island ecosystems. • Eliminate exotic organisms that threaten island ecosystems.
• Pest and weed surveillance	• Apply a high level of surveillance to prevent exotic plants and animals from becoming established.

• Incursions	• As far as possible, eliminate all incursions by exotic species, subject to the control being less damaging to indigenous species and ecosystems than the incursion.
• Biosecurity	• Apply the highest level of biosecurity standards in accordance with the Island Biosecurity standard operating procedure and/or its application through Conservancy Island Biosecurity Plans.
3. Prevent declines and extinctions	Re-introduce indigenous species to Ecosystem Restoration islands from within their known geographic range, and transfer populations from Ecosystem Restoration islands to boost those at other locations. Ecosystem Restoration islands may also accommodate out-of-range species if temporary and/or in the national interest.
• Translocation	• All translocations must comply with the Translocation standard operating procedure. • Missing indigenous plants and animals may be transferred to Ecosystem Restoration islands from other sites within their natural range, where this will increase ecological integrity. May include analogue species to replace related extinct taxa. • May include removal of species historically translocated that are deemed to be inconsistent with defined management objectives. • Ecosystem Restoration islands can be used as a source of species for recovery and restoration programmes elsewhere, subject to monitoring for adverse effects on donor populations. • Out-of-range species may be transferred to Ecosystem Restoration islands only if the transfer is temporary and/or in the national interest.

4. Improve ecosystem composition	• Maintain and improve the biotic mix of species characteristic of these island ecosystems. • Measure change in structure and composition of communities. • Measure species recolonisations. • Measure species reintroductions.
5. Partnership with tangata whenua	• Work with tangata whenua to ensure due consideration is given to Treaty partners' views, subject to maintaining ecological integrity. • Seek iwi views and respect iwi cultural values. • Develop effective working relationships with iwi.
6. Historic and cultural values	Protect historic and cultural values according to the Historic Heritage Protection SOP. • Manage historic and cultural places of high significance (actively managed historic assets). • Investigate record and research historic and cultural places and values.
7. Engagement, enjoyment and use	
• Community participation	• Actively foster community support for the level of protection given to Ecosystem Restoration islands. • Engender public support primarily through activities off-site.

• Education and interpretation	• Make people aware of the value of Ecosystem Restoration islands and the necessity for their protection and enhancement. • Provide information, educational materials and interpretation, primarily off-site. May be on-site if the most effective means for delivery of key messages. • Where suitable, provide opportunities for concessionaires to present conservation stories on-site.
• Recreation, tourism and outdoor activity	• Recreation and tourism visits are possible, but restrictions may apply. Use may be facilitated through controlled concession activities. • Recreation is limited to activities, with no permanent structures allowed for the purposes of recreation.
• Research	• Researchers shall be encouraged to pursue research that assists, or is consistent with, the primary goals of ecosystem restoration, ecosystem monitoring, protection and biosecurity. • The benefits for ecological integrity from the research should outweigh any adverse effects. • Risk assessment shall be carried out before any research is approved. Refer High Impact Research Application procedure. • Research results must be made available to DOC.

• Concessions, telecommunications and other utilities	• A limited number of concessions on Ecosystem Restoration islands may be allowed for low impact activities consistent with the management intent for the island. Strict operating conditions are likely to apply and effects of activities should be closely monitored. • No new structures (e.g. weather stations, telecommunication facilities, lighthouses) shall be located on Ecosystem Restoration islands. Any maintenance or enhancement of an existing facility must be achieved within its existing footprint. • Consideration may be given to structures required in the national interest.

4.5.4 Special Character category

Legal status:	Scientific Reserves, National Park islands and Scenic Reserves.
Category outcome:	To protect natural, cultural and historic resources on islands including species, communities, scenic features, geo-preservation sites, historic/cultural sites and landscapes.
Purpose:	• To protect indigenous flora, fauna or natural, historic/cultural features of particular rarity, representativeness, scientific interest or uniqueness. • To reintroduce species to sites they previously occupied, where the potential exists. • To import out-of-range species where this does not compromise values of the source location. This may include manipulations of species for study, research or education.
Key criteria:	• Retain some elements of their original fauna and flora. • Provide opportunities to reintroduce missing ecosystem components using translocations from elsewhere. • May be within the dispersal range of some vertebrate pests such as stoats and rats. A response to incursions is feasible in order to maintain management goals.
Access:	Access is generally open (with the exception of Scientific Reserves) but may be controlled as required in order to meet management goals.

Objectives of work	
1. Maintain ecosystem processes	Intervene to maintain and restore ecological integrity and dominance of indigenous species to the highest level achievable.
• Fire	• Fires may only be lit under permit. • High priority for action if an

	uncontrolled fire occurs.
• Pollutants	• Based on risk assessment—moderate to high priority to use statutory planning to reduce likelihood of spill. Should a spill occur then apply a moderate to high level of response and follow the requirements of the NZ Maritime Oil Spill Response Strategy.
• Disease surveillance	• High priority—response should be based on the risk profiles of the intervention being managed. • All translocations and health surveillance to follow the DOC Wildlife Health Surveillance standard operating procedure (Health Management of Terrestrial Vertebrate Species Protected under the Wildlife Act).
• Management facilities	• Buildings and/or structures may be constructed, and existing ones maintained (both permanent and temporary). • To minimise disturbance, any such buildings or structures must be the minimum necessary to support island management and work programmes.
2. Reduce dominance and spread of exotic organisms	• Prevent the spread of exotic plants and animals to island ecosystems. • Eliminate exotic organisms that threaten island ecosystems
• Pest and weed surveillance	• Carry out high level of surveillance for exotic pests and weeds that could threaten the goals for ecological integrity.
• Incursions and existing weeds	• Attempt to eradicate incursions of new exotic pests and weeds. • Control existing pests and weeds to the extent necessary to meet primary management goals, particularly goals for ecological integrity.

• Biosecurity	• Apply the highest level of biosecurity standards in accordance with the Island Biosecurity SOP and/or its application through Conservancy Island Biosecurity Plans.
3. Prevent declines and extinctions	Re-introduce indigenous species to Special Character islands from within their known geographic range and consider establishing species from outside their natural range. Special Character islands may also be a source for translocations to other sites.
• Translocation	• All translocations must comply with the Translocation standard operating procedure. • Special Character islands may be a source of species for translocation to other sites. • Special Character islands may be considered for receiving species outside their natural range, subject to an assessment of the potential adverse effects on the ecological integrity of any surrounding islands that have higher values.
4. Improve ecosystem composition	• Maintain and improve the biotic mix of species characteristic of these island ecosystems. • Measure change in structure and composition of communities. • Measure species recolonisations. • Measure species reintroductions.
5. Partnership with tangata whenua	• Work with tangata whenua to ensure due consideration is given to Treaty partners' views, subject to maintaining ecological integrity. • Seek iwi views and respect iwi cultural values. • Develop effective working relationships with iwi.

6. Historic and cultural values	• Protect historic and cultural values according to the Historic Heritage Protection SOP. • Manage historic and cultural places of high significance (actively managed historic assets). • Investigate, record and research historic and cultural places and values.
7. Engagement, enjoyment and use	
• Community participation	• Actively foster community support. • Carry out activities that engender public support. • Provide various opportunities for communities to participate in meeting the management objectives of the island.
• Education and interpretation	• Make people aware of the value of Protection islands and the necessity for their protection and enhancement. • Provide information, educational materials and interpretation, primarily off-site. • Where suitable, provide opportunities for concessionaires to present conservation stories on-site.
• Recreation, tourism and outdoor activity	• Access for recreation and tourism will be open, unless controlled temporarily for management purposes.
• Research	• Researchers shall be encouraged to pursue research that assists, or is consistent with, the primary goals for ecosystem restoration, monitoring, protection and biosecurity. • The benefits for ecological integrity from the research should outweigh any adverse effects. • Risk assessment shall be carried out

	before any research is approved. • Research results must be made available to DOC.
• Concessions, telecommunications and other utilities	• Tourism concessions are permitted providing the impact of the activities is consistent with the management intention for the island. • Applications for structures on Special Character islands (e.g. weather stations, telecommunication facilities, lighthouses) shall be assessed on a case-by-case basis.

4.5.5 Open Sanctuary category

Legal status:	Scientific Reserves, National Park islands, Scenic Reserves, Recreation Reserves, Wildlife Refuges and Wildlife Management Reserves.
Category outcome:	Restore island ecosystems after severe disturbance, with a focus on scientific research and public education.
Purpose:	• To restore and protect indigenous flora, fauna, natural and historic/cultural features of particular rarity, representativeness, scientific interest or uniqueness. • To re-introduce species that previously occupied the island and/or to introduce out-of-range threatened/iconic species to the site. • To engender public support for species recovery work through public visits and participation.
Key criteria:	• Islands that retain some elements of their original fauna and flora but are heavily modified by previous management regimes, such as farming. • May be within the dispersal range of some vertebrate pests, such as stoats and rats.
Access:	Access is open, but may sometimes be controlled to meet management goals.

Objectives of work	
1. Maintain ecosystem processes	Intervene to maintain and restore ecological integrity and dominance of indigenous species to the highest level achievable.
• Fire	• Fires may only be lit under permit. • High priority for action if an uncontrolled fire occurs.

• Pollutants	• Based on risk assessment—moderate to high priority to use statutory planning to reduce likelihood of spill. Should a spill occur then apply a moderate to high level of response and follow the requirements of the NZ Maritime Oil Spill Response Strategy.
• Disease surveillance	• High priority—response should be based on the risk profiles of the intervention being managed. • All translocations and health surveillance to follow the DOC Wildlife Health Surveillance standard operating procedure (Health Management of Terrestrial Vertebrate Species Protected under the Wildlife Act).
• Management facilities	• Buildings and/or structures (either permanent or temporary) may be constructed if they support, and are consistent with, management objectives.
2. Reduce dominance and spread of exotic organisms	On Open Sanctuary islands control existing pests and weeds to the extent necessary to meet primary management goals.
• Pest and weed surveillance	• Carry out surveillance to a level necessary to meet the primary management goals.
• Incursions and existing weeds	• Attempt to eradicate incursions of new exotic pests and weeds. • Control existing pests and weeds to the extent necessary to meet primary management goals.
• Biosecurity	• Apply biosecurity standards in accordance with the Island Biosecurity SOP and/or its application through Conservancy Island Biosecurity Plans.

3. Prevent declines and extinctions	The restoration of Open Sanctuary islands requires the transfer of indigenous plants and animals from other sites. This may include species from beyond their natural dispersal range.
• Translocation	• Subject to an assessment of any potential adverse effects on the recipient ecosystems and any surrounding islands with higher values, indigenous plants and animals may be translocated. • Open Sanctuary islands may provide donor populations for transfer to other sites. • Translocations must comply with the Translocation standard operating procedure (QD NH 1042).
4. Improve ecosystem composition	• Maintain and improve the biotic mix of species characteristic of these island ecosystems. • Measure change in structure and composition of communities. • Measure species recolonisations. • Measure species reintroductions.
5. Partnership with tangata whenua	• Work with tangata whenua to ensure due consideration is given to Treaty partners' views, subject to maintaining ecological integrity. • Seek Mäori views and respect cultural values. • Develop effective working relationships with iwi.
6. Historic and cultural values	• Protect historic and cultural values according to the Historic Heritage Protection SOP. • Manage historic and cultural places of high significance (actively managed historic assets). • Investigate, record and research historic and cultural places and values.

7. Engagement, enjoyment and use	
• Community participation	• Encourage public education, participation and recreation in ways that allow management goals to be met. • Actively foster community support. • Provide opportunities for communities to participate in management objectives for the island.
• Education and interpretation	• Make people aware of the value of Open Sanctuary islands, and the necessity for their protection and enhancement. • Where suitable, provide on-site interpretive panels, printed media and educational materials and facilities (e.g. camps or lodges). • Opportunities for concessionaires may be provided where this is consistent with management goals for the site.
• Recreation, tourism and outdoor activity	• Access for recreation is open, unless controlled temporarily for management purposes. • An appropriate range of recreation opportunities may be provided.
• Research	• Researchers shall be encouraged to pursue research that assists, or is consistent with, the primary goals for ecosystem restoration, monitoring, protection and biosecurity. • The benefits from the research should outweigh any adverse effects. • Risk assessment shall be carried out before any research is approved. • Research results must be made available to DOC.

• Concessions, telecommunications and other utilities	• Tourism is permitted as long as the cumulative effects of activities do not compromise the island's ecological integrity or other primary management goals, in accordance with appropriate legislation. • Applications for new utility structures on Open Sanctuary islands (e.g. weather stations, telecommunication facilities, lighthouses) will be assessed on a case-by-case basis, based on their (cumulative) effects on the island's ecological integrity and other primary management goals.

4.5.6 Multiple Use category

Legal status:	Scenic Reserves, Recreation Reserves and Historic Reserves.
Category outcome:	Protect and conserve historic and cultural resources, and provide for recreation, community participation and education.
Purpose:	• To restore and protect indigenous flora, fauna, natural features and historic resources. • Protecting natural resources may sometimes be secondary to other values. • To re-introduce, at suitable sites, species that previously lived on the island, and/or to introduce threatened/iconic out-of-range species. • To manipulate species for study, research, education or recreation.
Key criteria:	• Often heavily modified by previous management regimes, such as farming. • Activities may include extensive reintroductions of missing components using planting and translocations from elsewhere. These may include out-of-range species compatible with the management purpose of island.
Access:	Access is open with few restrictions, but may be controlled from time-to-time for management purposes

Objectives of work	
1. Maintain ecosystem processes	Intervene to maintain and restore ecological integrity and dominance of indigenous species to the highest level achievable.
• Fire	• Fires may be lit only by permit, or subject to regulations. • Moderate to high priority for action if an uncontrolled fire occurs.

• Pollutants	• Based on risk assessment—moderate to high priority to use statutory planning to reduce likelihood of spill. Should a spill occur then apply a moderate to high level of response and follow the requirements of the NZ Maritime Oil Spill Response Strategy.
• Disease surveillance	• A very high level of surveillance will be carried out in accordance with the DOC Wildlife Health Surveillance standard operating procedure (Health Management of Terrestrial Vertebrate Species Protected under the Wildlife Act.
• Management facilities	• Buildings and/or structures (either permanent or temporary) may be built if they support and are consistent with management objectives.
2. Reduce dominance and spread of exotic organisms	On Multiple Use islands control existing pests and weeds to the extent necessary to meet primary management goals.
• Pest and weed surveillance	• Carry out surveillance to a level necessary to meet the primary management goals.
• Incursions and existing weeds	• Attempt to eradicate incursions of new exotic pests and weeds. • Control existing pests and weeds to the extent necessary to meet primary management goals, particularly goals for ecological integrity.
• Biosecurity	• Apply biosecurity standards in accordance with the Island Biosecurity standard operating procedure and/or its application through Conservancy Island Biosecurity Plans.

3. Prevent declines and extinctions	The restoration of Multiple Use islands requires the transfer of indigenous plants and animals from other sites. This may include species from beyond their natural dispersal range.
• Translocation	• Subject to an assessment of any potential adverse effects on the ecological integrity of recipient ecosystems and any surrounding islands with higher values, indigenous plants and animals may be translocated. • Multiple Use islands may provide donor populations for transfer to other sites. • Translocations must comply with the Translocation standard operating procedure.
4. Improve ecosystem composition	• Maintain and improve the biotic mix of species characteristic of these island ecosystems. • Measure change in structure and composition of communities. • Measure species recolonisations. • Measure species reintroductions.
4. Partnership with iwi	• Work with tangata whenua to ensure due consideration is given to Treaty partners' views, subject to maintaining ecological integrity. • Seek iwi views and respect iwi cultural values. • Develop effective working relationships with iwi.
5. Historic and cultural values	• Protect historic and cultural values according to the Historic Heritage Protection SOP. • Manage historic and cultural places of high significance (actively managed historic assets). • Investigate, record and research historic and cultural places and values.

7. Engagement, enjoyment and use	
• Community participation	• Encourage public education, participation and recreation in ways that allow management goals to be met. • Actively foster community support. • Provide opportunities for communities to participate in management objectives for the island.
• Education and interpretation	• Make people aware of the value of Multiple Use islands, and the necessity for their protection and enhancement. • Where suitable, provide on-site interpretive panels, printed media and educational materials and facilities (e.g. camps or lodges). • Provide opportunities for concessionaires where the activity is consistent with management goals for site.
• Recreation, tourism and outdoor activity	• Access for recreation is open unless controlled temporarily for management purposes. • An appropriate range of recreation opportunities may be provided.
• Research	• Researchers shall be encouraged to pursue research that assists, or is consistent with, the primary goals for ecosystem restoration, monitoring, protection and biosecurity. • The benefits from the research should outweigh any adverse effects. • Risk assessment shall be carried out before any research is approved. • Research results must be made available to DOC.

• Concessions, telecommunications and other utilities	• Tourism is permitted to the extent that the cumulative effects of activities do not compromise the island's values or other primary management goals. • Applications for new utility structures on Multiple Use islands (e.g. weather stations, telecommunication facilities, lighthouses) shall be assessed on a case-by-case basis, according to their (cumulative) effects on the island's ecological integrity and other primary management goals.

5. Monitoring

5.1 INTRODUCTION

It is essential to monitor progress against the outcomes of the island classification objectives, to ensure that progress toward the outcomes for island management is being measured, and to communicated progress to all stakeholders. Monitoring is also essential to report progress towards the Department's intermediate outcomes as expressed in the Statement of Intent.

While specific monitoring is necessary for reporting requirements, a wide range of benefits also accrue from systematically plotting the success of management over time. This information can be used at a range of levels, for example, as a course filter to measure the effectiveness of management actions across islands with similar characteristics; to compare the outcomes resulting from similar management treatments in different places; and to measure and test selected objectives of work within island categories and potentially undertake comparisons between islands (Towns et al., 2009).

Monitoring is a way for us to learn and, where possible, improve performance and maximise the benefit of our management decisions.

The framework represented in Table 5.2 has been adapted for application to islands from the biodiversity outcomes and performance assessment framework presented in Lee et al. (2005). This island monitoring framework is consistent with the National Inventory and Monitoring Framework (currently in development), that will provide a common platform for assessing status and trend in the health and functioning of ecosystems and the effectiveness of management in achieving the desired results. A suite of inventory and monitoring tools, along with standards for collection, are available on the Department's Intranet as part of the Natural Heritage Inventory and Monitoring Toolbox.

The ultimate aim of these indicators for islands is to provide measures that ensure systematic approaches to reporting progress toward agreed outcomes. As management objectives vary from island to island, not all measures described will be relevant at all sites. For example, where the goal is maintenance of existing high ecological integrity on minimum impact islands, monitoring the success of species reintroductions does not apply (Towns et al., 2007). It is therefore important to be discerning when selecting measures and indicators so they are relevant. Systematic data collection should be sustained over the duration of the programme

and provide information at a level useful for management of the island and contributing as necessary to national reporting.

5.2 TABLE OF MONITORING INDICATORS AND MEASURES

Outcome Objective	Categories →	Minimum Impact	Ecosystem Recovery	Ecosystem Restoration	Special Character	Open Sanctuary	Multiple Use
Ecosystem processes: reducing threats	**Indicator**	Productivity.					
	Measures	Mast flowering and fruit production. Soil status (e.g. nutrient levels).					
	Indicator	Ecosystem disruption.					
	Measure	Number and extent and control of fires.					
	Indicator	Land cover.			Land cover.		
	Measures	Area under indigenous vegetation.			Area under indigenous vegetation. Area under intensive land-use.		
Preventing declines and extinctions: translocations (including plants and animals).	**Indicator**	Status of threatened taxa.		Status of threatened taxa.			
	Measures	Number of threatened taxa.		Number of threatened taxa. Number of threatened taxa under active management. Security of threatened taxa under active management. Demographic response to management at population level for selected taxa.			
	Indicator	Status of at risk taxa.		Status of at risk taxa.			
	Measures	Demographic structure at population level for selected taxa.		Number of at risk taxa. Number of at risk taxa under active management. Security of at risk taxa under active management. Demographic response to management at population level for selected taxa.			
	Indicator	Naturalisation of new weed and pest species.					
	Measures	Occurrence of self-maintaining populations of potential environmental weeds and pests.					
	Indicator	Exotic weed and pest dominance.		Exotic weed and pest dominance.			
	Measures	Distribution and abundance of exotic weeds considered a threat.		Distribution and abundance of exotic weeds and pests considered a threat. Indigenous systems released from exotic pests.			
Ecosystem composition	**Indicator**	Composition.					
	Measures	Size-class structure of canopy dominants. Demography of key wide-spread animal species. Representation of plant functional types. Representation of animal guilds.					
Partnerships with tangata whenua	**Indicator**	Productive relationships.					
	Measures	Cultural partnership projects. Cultural protection mechanisms.					
Historic/ cultural values	**Indicator**	Conservation of historic/cultural values.					
	Measures	Archaeological sites destroyed, damaged or modified with an authority from NZHPT. Archaeological sites destroyed, damaged or modified without an authority from NZHPT. Heritage protection plans in place. Repair work completed. Maintenance work completed.					
Recreation, tourism and outdoor activity	**Indicator**	Community involvement.					
	Measures	Community consultation. Community participation in conservation. Number and value of corporate sponsorships in conservation.					

	Indicator	Conservation profile
	Measures	Press releases (radio, TV, written) relating to island or wider programme. Website coverage. Public awareness events.
	Indicator	Recreation & tourism
	Measures	Number of visits. Number and standard of facilities. Number of concessions that meet conditions. Impacts on ecological values.

6. Applying the Classification and Preparing Operational plans

Islands should be classified by each Conservancy, preferably as part of the CMS process. Once the islands are classified, operational plans can be prepared for each island or group of islands. The plans will be briefer where management is not intensive.

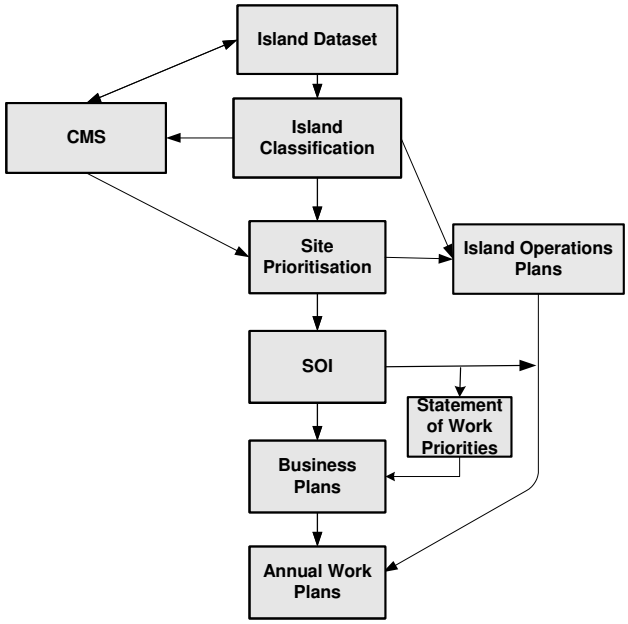
Operational plans will set out the management goals for an island or group of islands based on the category outcome and objectives of work described for each category. While the plans will vary in their level of detail depending on the nature of work being carried out, it is expected that each island or island group will have, as a minimum, a statement outlining the values of the site, the desired outcomes, and the objectives of management.

Someplans are already available through the DOC website. Examples include *Restoration Plan for Korapuki Island (Towns & Atkinson, 2004)* and *Restoration Plan for Mangere Island, Chatham Islands Group (Atkinson, 2003)*. Other plans of this type are currently in preparation around the country. While these detailed plans are focused on islands with large restoration programmes, it is intended that plans will be prepared to an appropriate level of detail for individual islands with large programmes of work or groups of islands. Grouping islands (for example clustering islands from the same biogeographic region) may require collaboration across DOC administrative boundaries to prepare the plan.

The framework of objectives of work provides a suitable structure to develop an island operations plan. The objectives should form the key headings for the plan and decisions guided by the descriptions of work within each objective. In some cases objectives may not be relevant to a plan in preparation, however it should be recorded that due consideration or assessment has been given to the objective.

Priority for preparation of plans will be determined by a combination of factors including the category in which the island has been classified, the Natural Heritage Ecosystem Prioritisation process (due for completion in 2010) that will determine the priority for management of the site and the influences of the Departmental statements of work priority.

The procedure for classification and management planning in relation other planning processes is summarised as follows:



7. References

Atkinson, I.A.E. 1985: The spread of commensal species of 'rattus' to oceanic islands and the effects on island avifaunas. *Editor Moors, P.J.; Conservation of Island Birds p35-81, ICBP, Technical Publication No. 3.*

Atkinson, I.A.E. 1990: Ecological Restoration on Islands: Prerequisites for Success. *Proceedings Ecological Restoration of New Zealand Islands, Editors Towns, D.R.; Daugherty, C.H.; Atkinson, A.E. 1990.*

Atkinson, I.A.E. 2003: A Restoration Plan for Mangere Island, Chatham Island group. Department of Conservation, Wellington.

Christensen, J. 2003. Auditing conservation in an age of accountability. *Conservation in Practice* 4 12-18.

Bellingham, P.J.;Towns, D.R; Cameron, E.K.; Davis, J.J.; Wardle, D.A.; Wilmshurst, J.M, and Mulder, C.P.H. 2010. New Zealand island restoration: seabirds, predators, and the importance of history. *New Zealand Journal of Ecology* 34(1): 115-136

Convention on Biological Diversity, 2006: Conference of the Parties: *Island Biodiversity—COP 8 Decision VIII/1 Curitiba, 20-31 March.*

Cunningham, D.M.; Moors, P.J. 1994: *The decline of rockhopper penguins Eudyptes chrysocome at Campbell Island, southern ocean and the influence of rising sea temperatures*. Emu 94: 27-36.

Department of Conservation, Protected Species Unit, 1994: *Guidelines for the Management of Islands (unpublished draft report).*

Department of Conservation (DOC) 1997. Conservation Management Strategy Stewart Island-Rakiura 1997-2007. *Department of Conservation, Invercargill*.

Department of Conservation (DOC) 1998a. Conservation Management Strategy Mainland Southland-West Otago 1998-2008. *Department of Conservation, Invercargill*.

Department of Conservation (DOC) 1998b. Conservation Management Strategy Subantarctic Islands 1998-2008. *Department of Conservation, Invercargill*.

Department of Conservation, 2005(a): General Policy for National Parks.

Department of Conservation, 2005(b): Conservation General Policy.

Department of Conservation, 2006: Our World Heritage, A Tentative List of New Zealand Cultural and Natural Heritage Sites: *A report to the Department of Conservation by the Cultural Heritage Advisory Groups.*

Department of Conservation, 2007 Categorisation of Protected Areas Manual. QD: NH/1027 (Internal standard operating procedure)

Department of Conservation, 2008: Department of Conservation: *Statement of Intent 2008-2011.*

Department of Conservation and Ministry for the Environment, 2000: The New Zealand Biodiversity Strategy: *Our Chance to Turn the Tide.*

Hutchings, R.L.; Towns, D.R. 2006: Draft Offshore and Outlying Island Classification, Internal RD&I publication, Department of Conservation, Wellington.

King, C. 1984: Immigrant Killers: *introduced predators and the conservation of birds in New Zealand,* Oxford University Press.

Lee, W.; McGlone, M.; Wright, E. 2005: Biodiversity Monitoring: *A review of national and international systems and a proposed framework for future biodiversity monitoring by the Department of Conservation.*

Myers, N.; Mittermeir, R.A.; Mittermeir, C.G.; Da Fonasa, G.A.B.; Kent, J. 2000: Biodiversity Hotspots for Conservation Priority. Nature 403: 853–858.

Owen, S.J. 1998: Department of Conservation Strategic Plan for Managing Invasive Weeds. Department of Conservation, Wellington.

Towns, D.R.; Atkinson, I.A.E. 2004: Restoration plan for Korapuki Island (Mercury Islands), New Zealand. Department of Conservation, Wellington.

Towns, D.R. 2006. Towards a Functional Approach of Island Management (Internal Memo).

Towns, D.R.; Daugherty, C.H.; Aikinson, I.A.E. (Editors) 1990: *Ecological Restoration of New Zealand Islands: Papers presented at the conference on ecological restoration of New Zealand islands, University of Auckland, November 1989*. (Department of Conservation, Conservation Sciences Publication No. 2).

Towns, D.R.; Wright, E.F.; Stephens, T.R. 2007: Systematic measure of effectiveness for conservation of biodiversity on New Zealand islands. Paper, Conserv-vision Conference, July 2007.

West, C. 2005. New Zealand Subantarctic Islands Research Strategy: *Southland Conservancy.*

8. Appendix 1

8.1 ISLAND RESERVES – LEGAL CLASSIFICATIONS, PURPOSE, AND MANAGEMENT OBJECTIVES

Table A1.1 Island reserves classified under the Reserves Act 1977, National Park Act 1980 and Wildlife Act 1953, showing purpose, management objectives and guidance for selection (paraphrased). The reserves are listed in order of potential biodiversity outcomes. Indicative classifications under the Island Strategy are suggested for each reserve classification group.

Purpose/principle under Act or Convention				
Legal context Reserves Act 1977 National Parks Act 1980	• Ensuring survival of indigenous fauna and flora in their natural communities and preservation of natural ecosystems. • Preserved as far as possible in their natural state.			
Wildlife Act 1953	• No stated purpose.			
World Heritage Sites	• UNESCO convention for protection of properties of outstanding universal value as cultural or natural heritage. Natural values include physical, biological and geological formations, habitat of threatened species of plants and animals and areas with outstanding scientific, conservation or aesthetic values.			
Reserve legal classification	Purpose	Primary objectives	Guidance for selection	Indicative Island Strategy Classification
Group 1 Nature Reserves (Reserves Act); Wildlife Sanctuaries (Wildlife Act); National Park Specially Protected Areas (National Parks Act)	An area with indigenous flora, fauna or natural features of special public interest because of rarity, scientific interest or uniqueness.	Preserve as far as possible in natural state. Preserve indigenous flora and fauna, ecological associations and natural environment. Exterminate exotic species as far as possible. Entry by permit to enable above objectives.	Large enough to ensure integrity of ecosystems and to meet primary objectives. Significantly free of human intervention, and able to remain so. Biodiversity goals achievable through protection and without active management or habitat manipulation.	Minimum Impact, Ecological Recovery, Ecological Restoration
Group 2 Scientific	An area with ecological	Preserve indigenous	At least two-thirds natural	Ecological Restoration,

Reserves (Reserves Act)	associations, biotic communities, soil types, geomorphological phenomena (etc) of special interest for scientific study, research, education and national benefit.	flora and fauna as far as possible. Manipulate where appropriate. Exterminate exotic species to gain further scientific knowledge. Control or permit access as required to meet above objectives.	condition by area, but can contain modified ecosystems. Large enough for scientific use without compromising natural values.	Special Character, Open Sanctuary
Group 3 National Park islands (not designated as specially protected areas) Scenic Reserves (Natural s. 19 (1) (a) Reserves Act); Wildlife Management Reserves (Wildlife Act); Wildlife Refuges (Wildlife Act); World Heritage Sites	Area with significant scenic interest, beauty, natural feature or landscape qualities.	Managed for intrinsic worth and for public benefit, enjoyment and use. Preserve indigenous flora and fauna, biological associations and the natural environment as far as possible. Exterminate exotic flora and fauna as far as possible. Freedom of entry and access subject to restrictions required to meet above objectives.	Contain natural or associated cultural or heritage features or landscapes of high scenic quality. Large enough to protect the integrity of its features and surroundings.	Minimum Impact, Ecological Recovery, Ecological Restoration, Special Character, Open Sanctuary, Multiple Use
Group 4 Recreation Reserves (Reserves Act)	Area with open space and outdoor recreational values for recreation, sporting activities, physical welfare and public enjoyment and for protecting natural environment and beauty of the countryside.	Conservation of qualities that contribute to pleasantness, harmony and cohesion of the natural environment. Freedom of entry and access.	May be highly modified. May be in partly natural conditions. May be lineal for recreational walking or vehicle use.	Multiple Use
Group 5 Scenic Reserves (Modified s. 19 (1) (b) Reserves Act)	Area which, by development and introduction of flora (native or exotic), will become of	Preserve indigenous flora and fauna, biological associations,	Degraded natural or semi-natural areas where the public interest warrants	Special Character, Open Sanctuary, Multiple Use

	significant scenic interest.	the natural environment and beauty in ways consistent with the purpose. Exterminate exotic fauna and flora as appropriate. Freedom of entry and access.	restoration or conversion as a scenic attraction. Generally a small area.	
Group 6 Historic Reserves (Reserves Act)	Area with places, objects and natural features of historic, archaeological, cultural, educational and other special interest.	Manage structures, objects and sites. Preserve indigenous flora and fauna and natural environment as appropriate. Freedom of entry and access.	Large enough to preserve features. Large enough to buffer against incompatible development. Primary value is tradition, historic or archaeological. Of immediate interest to visitors for research and interpretation of New Zealand history.	Multiple Use