

Guiding Principles

Ten guiding principles will guide Council in achieving the four open space outcomes in the *Strategic Plan*. These principles represent our current understanding of the physical and social factors which affect Wellington's open spaces.

ENHANCING NATURAL SUCCESSION

Only a few remnants of the original vegetation patterns in Wellington survived the massive land clearances of the nineteenth century. Currently, large areas of marginal land surrounding the city are undergoing a natural succession from pasture to gorse and scrub and finally to native forest, as external factors make farming less viable.



**Natural succession on the hills behind Wilton
between 1950 and 1998**



Without active management most of these areas will revert to degraded secondary growth native forests which are unlikely to approach the diversity of the original forests. For various reasons, not least the extinction of numerous local bird species, the original state of the forests is not reachable. Human intervention is required in order to establish many native plant species, apart from those which naturally occur on disturbed or bare sites. Further succession to a more diverse forest is hampered by possum browse and plant pests and the establishment of many species will require more intensive efforts to eliminate plant and animal pests.

While many of the smaller bird species that act as seed dispersers for the early mahoe-dominated low forest are still present, there are neither the seed sources nor the disperser bird species for the later successional species such as rimu, rewarewa, miro, rata, kohekohe, hinau, matai, tawa or titoki. There is a near total absence of these later species regenerating under mahoe forest little more than a kilometre from the mature forest remnant at Otari.

There are few remnants of the original podocarp-broadleaf forest which once covered most of Wellington. These remnants are particularly important as models and as seed sources for forest restoration.

Principle:

Areas of open space around Wellington will naturally revert from pasture to gorse and scrub and then to secondary growth native forest without human intervention. Council believes that in areas where forest restoration is an objective, human intervention will be required to approach the diversity of the original forests. Council will seek to control plant and animal pests and to reintroduce later successional species such as rimu, miro, matai, rata, tawa, kohekohe and hinau.

BETTER NETWORKS AND CORRIDORS

Networks and corridors are fundamental concepts for open space in Wellington. Ecological research has indicated that the long-term viability of natural areas is greater the larger the natural area is.

In part this is due to the greater genetic diversity available where there are more plants and animals, which enhances the chances of survival for any particular species. In part this is due to the greater capacity for large areas to buffer or absorb adverse effects from surrounding areas without destroying the natural processes which underlie the natural area and enable it to survive.

The viability of existing natural areas can be greatly enhanced by linking adjacent areas with 'ecological corridors'. In effect the protection or creation of a relatively small area of 'ecological corridor' may significantly increase the total area protected, and the size of the plant and animal populations. This may have a large effect on the viability of the natural area.

Recreational networks are similarly important. Isolated tracks or recreational facilities offer a single recreational opportunity. Networks of tracks and other recreational facilities create a range of recreational opportunities which is effectively greater than the sum of the parts. People have the choice of mixing and matching their recreational activities.



Bush track in Hataitai Park, Mt Victoria

For example two separate walking tracks provide two recreational opportunities. If the two tracks are linked, they provide three recreational opportunities, as people can choose to walk either of the individual tracks, or they can walk a longer combined track. The more complex the recreational network, the more choice and opportunities it offers for users.

Recreational networks also make recreational opportunities more accessible. For example a network of walking tracks provides more access points and allows users to choose what length and difficulty of track they want to experience. The more accessible recreational opportunities are, the more likely it is that they will be used.

Principle:

Council will seek to create ecological corridors and recreational networks that maximise the value of the open space, and promote the viability of natural areas and the flexible use and accessibility of recreational areas.

PROTECTING THREATENED SPECIES

New Zealand's native flora and fauna evolved in an environment free of mammals apart from native bats. Since the introduction of browsing animals, mustelids such as stoats, rodents, cats and dogs, the native flora and fauna have been significantly affected with many species becoming extinct, either nationally or on a local level. At the same time a large proportion of indigenous ecosystems have been destroyed through land clearances.

Reversal of this trend depends on providing suitable habitat free of possums and other predators. To date this has been achieved most successfully on offshore islands where predator populations can effectively be eradicated. One or two 'mainland islands' have been created using isolated patches of bush where re-infestation of possums and other predators is relatively low and can be kept under control by trapping and poisoning programmes.

The proposal to create a 'mainland island' at the Karori Wildlife Sanctuary in the middle of Wellington is a bold and exciting opportunity. It is dependent on the construction of a predator-proof fence around the Karori Reservoir which would allow the eradication of possums and other predators within the fence. If successful the proposal would reintroduce endangered species of native birds into the heart of Wellington City.

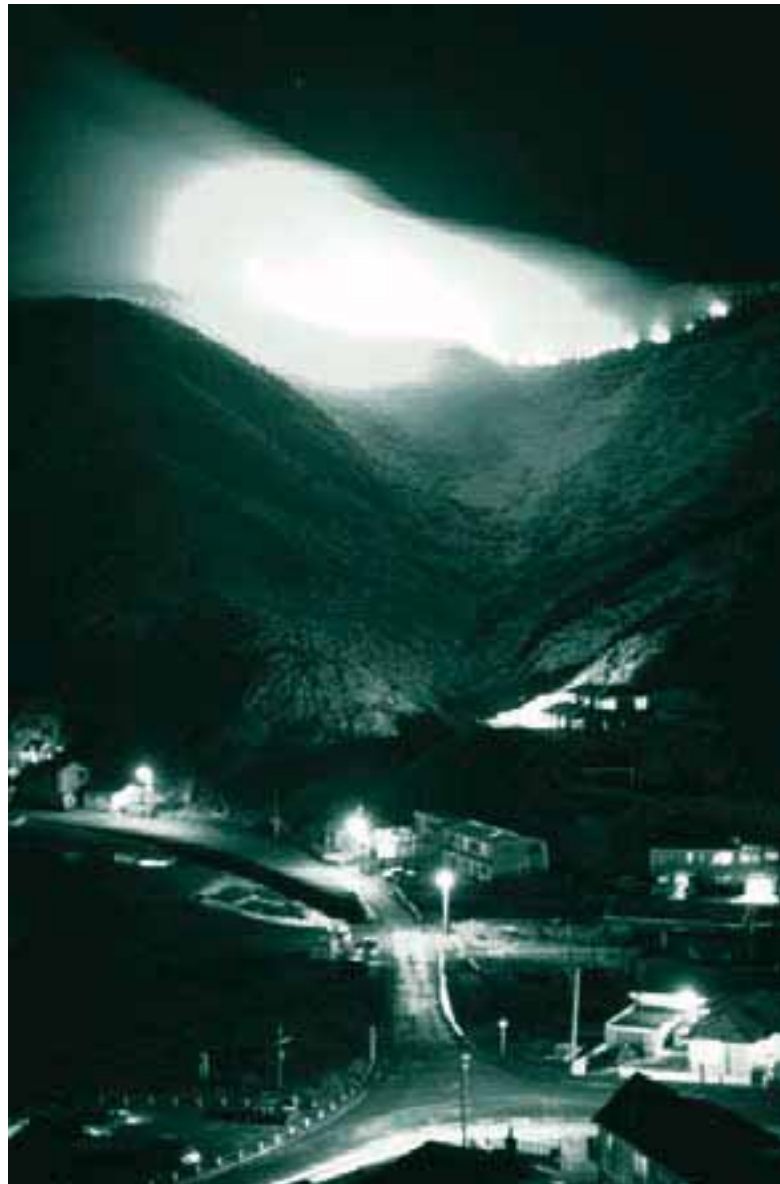
A similar principle lies behind the proposal to establish a marine reserve on the South Coast. The principal predators of fish and other marine life are humans. The establishment of a marine reserve effectively creates a 'paper fence' which protects the marine life within the reserve boundaries but allows continued public access and enjoyment.

Principle:

The re-introduction of threatened native plant, bird, lizard, insect and fish species into Wellington requires the provision of adequate habitat and the control of predators. Council will support the re-introduction of native species and in particular the creation of the Karori Wildlife Sanctuary and the establishment of a marine reserve on the South Coast.

REDUCING FIRE HAZARD

Large areas of open space in and around the city have relatively high fire hazard. This is due to the flammability of the existing vegetation cover (primarily gorse), and to the steep hill slopes which can significantly accelerate a fire's rate of spread.



Fire above Owhiro Bay

Fire hazard can be controlled through ongoing human intervention using firebreaks, vegetation clearance and weed spraying. Alternatively, a cost-effective long-term reduction of fire hazard can be achieved by promoting the natural succession of fire resistant native species. These species will out compete gorse over a 15-30 year timeframe and in doing so replace the current highly flammable vegetation cover with a secondary growth native forest of low flammability. The canopy of native vegetation produces a layer of litter and humus on the ground which is more moist and fire resistant than the layer under gorse or exotic tree plantations.

This process can be hastened by planting ‘green breaks’ in high risk areas. ‘Green breaks’ are formed by clearing strips of land and planting these with fire resistant native species, kickstarting the regeneration of native bush along these breaks. Once established, the strips of low flammability native bush act in a similar way to conventional fire breaks and are less visually intrusive.

Principle:

Council will seek a cost-effective long-term reduction of fire hazard in the open spaces around Wellington by promoting the natural succession of fire resistant native species, together with the use of ‘green breaks’ in high risk areas.

PROTECTING THE COAST AND STREAMS

Public access to and along the coast and rivers, and the protection of their natural character and recreational values, have historically been highly valued by New Zealand society. The provision of what is popularly known



as “the Queen’s Chain”, dating from Queen Victoria’s royal instructions to Governor Hobson in 1840, has been enshrined in some of New Zealand’s earliest legislation, and the principles have been carried through to a number of present day statutes including the Resource Management Act 1991, the Reserves Act 1977, and the Local Government Act 1974.

“The Queen’s Chain” is actually composed of three different types of protected area:

- I. Unformed “paper” or “legal” roads often run along the coastline or the banks of rivers and lakes, and are usually one chain wide (20.12 metres). Some of these were intended for the future development of public roads, but for others the intention was simply to retain the foreshore or riparian area as public land. There may be informal pedestrian or vehicle access along paper roads.
- II. Marginal strips are reserved from the sale or disposition of Crown Land under the Conservation Act 1987. These strips are usually 20 metres wide and are noted on the title of the land at the time of sale by the Crown in order to protect conservation values and to provide for public access and recreation. Recent amendments to the Conservation Act have allowed the width of marginal strips to be varied where appropriate.
- III. Esplanade reserves and strips are created when land is subdivided under the Resource Management Act 1991 in order to protect conservation values, and to enable public access and recreation. While 20 metres is the standard width for both reserves and strips, the width may be varied depending on the situation.

An esplanade reserve is land that vests with the Council as Local Purpose Reserve (for esplanade purposes) under the Reserves Act 1977. An esplanade strip is a statutory covenant registered against the title of the land, which may allow public access or protect natural values depending on the site and the particular agreement.

In Wellington City District a large part of the coastline is held as legal road, including the unformed ‘paper road’ from Ohau Point to Owhiro Bay, and the largely formed road from Owhiro Bay to Oriental Parade. The coastline north of Makara is largely unprotected. Most of the streams around Wellington are also unprotected although parts of the Belmont and the upper Kaiwharawhara streams are included within existing parks.

Riparian planting can improve the water quality of streams by filtering surface and sub-surface runoff, and controlling erosion. It can also promote native aquatic plant and animal communities by reducing the intensity of light and the temperature of streams, and providing an increased range of habitats. Council’s Waste and Pollution Strategy addresses the reduction of sewage and stormwater pollution of the coast and streams.

Principle:

Council will seek to protect and enhance public access to and along the coastline and significant streams, and to promote the revegetation of riparian areas with appropriate native species. This will contribute to improving water quality and to enhancing native aquatic habitats.

MANAGING THE CITY'S URBAN FORM

Open space is part of managing the City's urban form in two key ways. The first is at a relatively large scale by containing the urban environment, the second is at a smaller scale by interweaving the built and the natural environment.

Both the central city and outlying suburbs have a natural tendency towards containment because of Wellington's topography. This containment helps to make the city more accessible and accentuates the identity of Wellington. Containment should be exploited where appropriate to strengthen the city experience, intensifying the inner city and restricting the sprawl of the suburbs. Containing the built environment helps to balance the natural environment which surrounds it, and enhances the features which make Wellington unique.

Containment also promotes the most efficient use of the City's infrastructure and resources by concentrating development as opposed to allowing urban sprawl.

At a smaller scale, private gardens in some of the older suburbs such as Wilton appear to have significant areas of bush when viewed on satellite imagery.¹ This interweaving of the natural and the built environment not only provides significant habitats for plants and animals, but also helps to make the city a more liveable place.

Principle:

Council believes that open space is a key part of managing the city's urban form by containing the built environment and interweaving the natural with the built environment.

¹ Page 57, Assessment of Open Space in Wellington City, Boffa Miskell Limited, 1998.



Aerial view of the Wellington peninsula showing the Town Belt and the hills along the proposed Outer Green Belt

INCREASING DENSITY

Once no New Zealand house was complete without a quarter acre section. Today there is a trend towards higher density residential living (see following table) and smaller gardens. This is the result of a number of factors including:

- increases in the popularity of inner city apartments;
- economic incentives to cross lease or subdivide larger sections;
- new planning and building regulations allowing higher density developments; and
- lifestyle changes.

Figure 3: Changes in population density from 1986 to 1996 in Wellington suburbs²

WELLINGTON SUBURBS	1986 People per km ²	1991 People per km ²	1996 People per km ²	1986 - 1996 Difference	% Change Population Density
Wadestown/Wilton	1421	1388	1390	-30	-2.13%
Seatoun	1602	1521	1588	-13	-0.84%
Tawa	1618	1630	1613	-5	-0.29%
Lyall Bay/Melrose	1325	1314	1352	27	2.01%
Newlands/Grenada	276	290	305	30	10.81%
Karori	1104	1123	1160	56	5.11%
Ngaio/Khandallah	1034	1059	1103	69	6.71%
Roseneath/Hataitai	2878	2851	2980	102	3.55%
Brooklyn	1751	1756	1869	117	6.69%
Berhampore/Newtown	2641	2509	2759	118	4.47%
Northland/Kelburn	2464	2468	2585	121	4.91%
Island/Owhiro Bay	1329	1360	1460	131	9.82%
Churton/Johnsonville	1254	1320	1405	151	12.06%
Miramar/Strathmore	1996	2047	2163	166	8.33%
Oriental Bay/ Mt Victoria	3721	3700	3940	219	5.90%
Kilbirnie	2806	2855	3054	248	8.83%
Te Aro/Mt Cook	3394	3266	3703	310	9.12%
Inner City	1381	1278	1753	372	26.92%

This has a number of implications for public open space. In particular there are likely to be greater and more varied demands for public open space for activities which formerly would have occurred in private open spaces. For example neighbourhood reserves are likely to have a higher level of use by young families as private gardens become smaller. Similarly, the proportion of the city's vegetation cover that is on public open space is likely to increase over time as private gardens reduce in size, adding to the ecological significance of the public spaces.

² Supermap: Census of Population and Dwellings 1996, Department of Statistics.

Principle:

Council believes that the increasing density of population and dwellings in Wellington is likely to lead to smaller residential sections and increasing demand for public open spaces.

RESPONDING TO OPPORTUNITIES

When dealing with open space Council is often negotiating with landowners and external agencies. Council can only achieve its open space outcomes with the cooperation of these parties. In consequence it is not possible to establish a strict timetable for the implementation of many open space initiatives. They are by their nature 'opportunity driven', as and when parties are prepared to deal with Council.

Principle:

Council's open space objectives need to be sufficiently general and flexible to allow Council to respond to opportunities as they arise and to negotiate good value for money.



Troup Picnic Site, Otari/Wilton Bush

PROMOTING RECREATION

Wellingtonians value the recreation opportunities available in the city's open spaces. Recreational use of open spaces is encouraged by making them more accessible and usable.

All citizens should be able to access recreation opportunities in the City's open spaces. This requires that the opportunities are provided in a range of levels which cater for a range of abilities and interests. Physical disability, economic and/or social disadvantage should not be barriers to the enjoyment of open spaces.

The City's open space network should provide a diversity of recreational opportunities, both organised and informal, that enable people to have access to their preferred recreational activity. Effective management through the application of sound planning and investment decisions will ensure that appropriate and desirable recreation opportunities are increased and enhanced.

In general an even distribution of recreational opportunities across the City is desirable to ensure equal opportunities across the community. The distribution should also take into account the need for the type of opportunity and the level of investment required. A hierarchy of facilities based around recreation hubs is proposed to meet these criteria.

Principle:

Council will seek to provide a diverse range of recreational opportunities in open spaces that cater for a range of abilities and interests. In general it is preferable to distribute these opportunities evenly through the City, except where the nature or cost of the opportunity prevents this or suitable locations are not available.

BALANCING RECREATION AND THE ENVIRONMENT

There is a potential conflict between recreational usage and the conservation of the natural environment. Council is committed to providing a wide range of opportunities for people to use and enjoy the City's open spaces.

The *Recreation Strategy* has identified that there should be a balance between the recreational usage and the conservation of the natural environment. Potential conflicts can be resolved through good design and appropriate management.

Principle:

Council is aiming for an optimal balance that enables widespread recreational use of open spaces while protecting the natural environment of Wellington.