

OBJECTIVES AND POLICIES

Part Two of the Management Plan identifies the major issues arising from the investigation of the context and background in Part One. This part outlines the Objectives and Policies required to effectively guide the future development and management of the reserves in response to those issues. Details of how the Objectives and Policies are to be implemented are included in each section.

Concept Plans are laid out in Part 3 of the Plan.

1.0 Vision Statement

The Te Huruuru - Henderson Creek Corridor Reserves will be managed to protect and restore the significant natural character and ecological value of the Creek, its tributaries, wetlands and riparian margins, whilst providing for appropriate recreation, use, access, education and enjoyment.

2. Recreation and Use

Objective

To increase the use and enjoyment of the reserves and their recreation opportunities in a way that is consistent with the purposes and values of the reserves.

Policy 2.1

To facilitate public access between and within the reserves to provide logical linkages and passive recreational opportunities.

Implementation

- Provide safe walking tracks which do not compromise ecological values and which connect

strategic reserve areas.

- Develop and extend the existing concrete walkway along the east bank to create a mixed walking/cycle way of consistent standard, meeting the requirements of the Austroad guidelines (Part 14), until such time as they are replaced by New Zealand traffic engineering practice guidelines.
- Undertake as necessary, all works required to improve drainage along the walkway, including bridges and boardwalks, through Sherwood Park as this section of the walk/cycle way is upgraded.
- Develop walkway linkages between all the reserves on the west bank.
- Develop an informal combined walkway and wilderness trail along the length of the west bank from Cranwell Park to the motorway. That the northern section between the stadium and the motorway be implemented after 2008, subject to a review of the necessity and/or public desire for a walkway, and a crime/safety risk analysis.
- Support the location of the jetty and suspension bridge connecting the Oval Lawn below the Sports Complex to Sherwood Park, as shown in Concept Plan 6, Part 3 of this Plan.
- That the footbridge connecting the Waitakere Sports Complex with Sherwood Park be designed and built to accommodate shared pedestrian and cycle use if engineering and budget requirements allow.
- Allow existing footbridges to be upgraded and retrofitted as appropriate.
- Liase with the Squash Club in Buscomb Ave to investigate options for creating an esplanade reserve below the Club or a purchase/lease arrangement with the existing facilities in order to link Cranwell Park and Epping Esplanade.
- Investigate options for purchasing the remaining section of privately-owned riparian land, to the north of the Sports Complex in order to join the two sections of Henderson Creek Esplanade Reserve.



- Develop and maintain a consistent and safe standard of cycle and/or walkway on each bank.
- Investigate future possible options for a bridge across the inlet in Colletta Esplanade Reserve, including an art feature.
- Investigate the possibility of establishing an easement over the riparian margin of the site at 411 Great North Road.
- Liase with Transpower to ensure that any walking track in Henderson Creek Esplanade Reserve be located and designed in such a way that discourages public access to and around the electricity infrastructure.

Policy 2.2

To improve the connectivity between the pedestrian network in the reserves and the local neighbourhood.

Implementation

- Provide pedestrian, pram and wheelchair access at all access points to the reserves network where appropriate, where natural values would not be adversely affected and where physical constraints on the site allow for it.
- Upgrade all existing and new entrances to the reserves, and provide adequate signage to ensure public knowledge of the access point for the reserves.
- Develop logical and visible access points to surrounding streets in residential and commercial areas on both sides of the Creek to facilitate and promote safe and easy access to the reserves network.
- Maximise the number of safe access points to each reserve.
- Provide for lighting and seating at access points where appropriate.
- Investigate options for lighting all or part of, the footpath and footbridge entry to Cranwell Park from

Millstream Drive in order to connect with lit areas of Cranwell Park. Ensure that entry lighting, if implemented, is designed in such a way as to minimise the impact on neighbouring properties.

Policy 2.3

To implement the section of the North West Cycle Route that connects Henderson with the north western motorway link through the reserves along the eastern bank of the Creek.

Implementation

- Upgrade the eastern pathway to a consistent standard of concrete of a minimum 2m width to allow for mixed pedestrian/cycle use along the length of the cycleway.
- Allow for the shared-use path to be widened according to the Austroad (or NZ) Guidelines, wherever possible, to meet the needs of users.
- Ensure that the shared-use cycleway design complies with the provisions of the Austroad Guidelines until such time as they are replaced by New Zealand Standards for cycle facility design.
- Liase with relevant sections of Council to ensure that the design and construction of the cycleway does not adversely affect the natural, cultural or recreational values of the reserves.
- Create an entrance to the cycle way on Edmonton Road through Claude Brooke Drive linking to the cycle way in Tui Glen.
- Create a direct link from Central Park Drive, across the Creek to Sherwood Ave and the east bank.
- Improve the linkages into the town centre for cycle/walkway users and in particular, linkages through Cranwell Park to Millstream Drive, Alderman Drive, Great North Road and Trading Place.
- Upgrade the Tui Glen bridge to cater for shared-use cycle/pedestrian traffic.

Policy 2.4

To provide for a variety of recreational pursuits while respecting the needs and values of all users.

Implementation

- Ensure that recreational structures, except for jetties and bridges, are kept clear of the riparian margins.
- Install and maintain children's play facilities at appropriate points in





the Creek Corridor where there is a demand for them.

- Investigate the need for toilets at appropriate points within the reserves and provide them only where it is found they are needed.
- Establish clear and appropriate dog control areas within the reserves as required. In particular, restrict areas where dogs can have free run to those areas where ecological values are lowest, eg the east bank, and require them to be on a lead elsewhere in the reserves.
- Provide for dog doo collection through the installation of rubbish bins as appropriate.
- Allow for the fact that the reserves function as local and neighbourhood, as well as City-wide, reserves.

Policy 2.5

To provide a safe environment for reserve users.

Implementation

- Implement "Safer Design for the Green Network: Design Guidelines" to ensure that buildings, facilities and plantings are design and maintained in a way that minimises safety concerns and maximises surveillance.
- Assess lighting requirements and install if required at key locations.
- Maintain all play equipment in accordance with NZS 5828 and Council Safety Standards and all buildings and structures shall comply with the Building Code.
- Ensure walking tracks are well maintained.
- Allow sun shelters to be constructed above all play areas as necessary.
- Provide shade by way of trees or other structures around open grass spaces and seats for reserve users.
- Ensure that visibility is maintained wherever possible to promote safety within the reserves.

- Where possible, design walkways and lookouts that promote visibility from both banks.
- Liaise with neighbouring properties to encourage the construction of low, permeable, or where possible, no fences adjoining the reserves.
- Encourage the use of private gates and other access points into the reserves.
- Wherever possible, allow for knolls, ridges, viewing points and other areas of potential visibility within the reserves to be kept on open ground to promote views of the Creek and the opposite bank.

Policy 2.6

To increase the use and range of recreation facilities.

Implementation

- Encourage clubs leasing land and buildings to enter into joint arrangements in accordance with the Community Assistance Policy, to enable the efficient use of facilities by a range of groups, including youth, older people, women and all cultures.
- Provide facilities for visitors to the reserves, such as seating, BBQs and picnic tables, in appropriate places to enable them to enjoy the reserves without impacting on the natural values.
- Investigate options for the future development of Cranwell Park that complement the existing facilities and maximize the use and enjoyment of the Park by a range of users without impacting on the natural values.
- Investigate options for the installation of a petanque court in Chilcott Brae.
- Develop access and seating for older folk in Chilcott Brae.

Policy 2.7

To provide for short-term special events in appropriate locations.

Implementation

- Allow special cultural events and ceremonies to be held in the reserves where they do not negatively impact on the natural values of the reserves or the reasonable expectations of neighbours.
- Allow for the placement of structures that will support temporary art



exhibitions in reserves where they do not negatively impact on the natural or recreational values of the reserves or the reasonable expectations of neighbours.

- Proposals for special events will be assessed against the following criteria:
 - Events must be of public interest and value;
 - There must be no conflict with the reserves values;
 - There must be no permanent occupation or utilisation of any part of the reserve;
 - There must be no conflict with any other WCC policies, including bylaws;
 - At the conclusion of the event, the reserve shall be reinstated to its condition prior to the event.
- There must be full compliance with all the conditions Council attaches to any permit allowing the short term special event, otherwise a Resource Consent application will be required.

Policy 2.8

To develop Tui Glen Reserve to retain some form of short-term accommodation facility within the park area while ensuring that there is an open and safe park area available for the general public.

Implementation

- Upgrade the esplanade walkway through Tui Glen to a standard consistent with the east bank walk/cycle way, linking Tui Glen Esplanade Reserve and Chilcott Brae.
- Ensure that the accommodation and associated services component does not impact negatively on the reserve area or public access.
- Investigate options for the future purchase of property on Edmonton Road to increase visibility into the reserve from the road frontage.
- Ensure that any future lease arrangement include stringent directions to ensure that the facility

provide accommodation and associated services only for tourists and special events.

- Ensure that any new lease include a stringent direction to restrict and enforce the length of stay to a maximum of 90 days as directed by the Reserves Act.
- Provide for predominantly tourist flat accommodation and associated services, with some limited motor van/tent provisions as appropriate, within the area outlined in the Concept Plan.
- Ensure that caravans are not permitted.
- Ensure that any development in Tui Glen Reserve does not detract from the primary recreational values of the reserve.

Policy 2.9

To ensure that there is no further encroachment into the reserve areas from adjacent private properties and that there is a progressive removal of existing encroachment features and practices.

Implementation

- Identify the number and extent of encroachments and undertake progressive consultation with private land owners and establish a method of mutual agreement for removal of encroachment and/or maintenance of those areas where there is an agreed benefit to the wider public.
- Undertake regular monitoring of reserve boundaries for encroachment and ensure appropriate enforcement action is undertaken, where necessary, according to the WCC Draft Encroachment Policy.

3.0 Ecological Values

The vegetation present within the Reserves significantly affects their amenity value and use and adds to the natural character of the Creek Corridor. Improved riparian vegetation within the Corridor will greatly enhance the ecological values of the Creek and its margins and will also provide better protection against erosion and runoff, and improve water quality and in-stream habitat. While the extent of the existing riparian habitat surrounding the Creek is limited, there are small vegetation fragments containing appropriate vegetation that have the potential to act as regional linkages (ecological corridors) for





the daily and seasonal movement of bird and aquatic species, and facilitate natural dispersal and regeneration processes.

Objective

To manage the reserves in a way that ensures the protection and enhancement of the natural ecosystems along the Creek Corridor. In particular, give priority to those ecosystems that support threatened species, but also including all indigenous flora and fauna on the reserves.

Policy 3.1

To protect and enhance the native riparian and regenerating vegetation of the reserves.

Implementation

- Establish and maintain a healthy, intact, weed and predator-free vegetation buffer where possible, as a key management requirement for the restoration of regenerating native vegetation.
- Work with the Green Network, Weedfree Waitakere Trust and the local community to establish and manage areas for ecological restoration, particularly along the western esplanade and the northern reaches of the Creek.
- Undertake staged vegetation restoration beginning in the priority restoration areas as specified in this Plan.
- Work with Weedfree Waitakere Trust and the Green Network to establish and implement weed eradication and planting programmes within areas of existing scrub and native vegetation in the corridor.
- Seek the involvement of the local community in the revegetation and vegetation management of the reserves.
- Establish a commitment to and programme for the eco-sourcing, propagation and supply of native species of the area for use in vegetation restoration within the reserves in accordance with Council's

Ecosourcing Policy.

- Undertake the removal of weed species that are threatening the viability of remnant native vegetation or its re-establishment, according to the priorities outlined in the WCC Weed Strategy.
- Liaise with Ecowater Solutions regarding work around the stormwater ponds in Henderson Creek Esplanade Reserve.
- Implement as appropriate, the Riparian Planting Guidelines provided in Part 3 of this Plan.
- Support the partnership established between Parks, Project Twin Streams and Edenz Language School to protect and enhance the riparian margin of the Great North Road site.

Policy 3.2

To improve the value of the area as a connective link between the Waitakere Ranges and the coast and highlight the goals of the Green Network.

Implementation

- Create a wildlife corridor along the west bank with the minimum width of riparian vegetation being 5 m wide and linked to more substantial vegetation patches around gullies and stormwater inlets.
- Manage the parks and esplanades as buffers to the riparian margins to establish an urban greenway.
- Replant selected areas to serve as corridors to aid in the natural dispersal of invertebrates and lizards from less disturbed and more species-rich habitats.
- Manage the reserves as a continuous strip of open space in the city for ecological and human enjoyment.
- Implement a programme of public education to highlight the goals and work of the Green Network through the use of educational signage and community participation and ownership.
- Liaise with the ARC to ensure a co-ordinated approach to management of the reserves and to the Waitakere Ranges and the Waitemata Harbour while ensuring the integrity of WCC management strategies.
- Protect the remnant native forest and riparian vegetation areas from recreational damage by signs and the creation of informal pathways outside the sensitivity areas as appropriate.
- Encourage community projects and the use of artwork and



installations within the reserves that highlight the goals of the Green Network.

- Work with neighbouring private landowners in Edmonton Road to control weeds and revegetate the riparian margin below their properties on the eastern bank of the Creek, between Tui Glen Esplanade and the Falls Park carpark.

Policy 3.3

To establish and improve habitat diversity for native birds and invertebrates.

Implementation

- Increase the range and availability of habitat for native species by improving vegetation diversity, complexity, structure and health.
- Increase food resources year round by using species listed in the Planting Guidelines.
- Establish vegetation around wetland margins to provide shelter and facilitate the establishment of wetland bird species, potentially including two of conservation significance.
- Establish a planting strategy to increase food sources using a range of species with the aim of attract birds back into the Creek Corridor based on the Planting Guidelines - Part 3.
- Ensure that all new revegetation programmes include a percentage of mature plants.
- Where possible, avoid the use of total clearance of weed-infested scrub areas before revegetation to ensure that some habitat for invertebrates is retained.
- Where weed species are removed to facilitate revegetation, ensure that a percentage of the existing canopy is retained to provide shelter and habitat for birds and invertebrates.
- Allow stumps and logs of large trees to rot *in situ* where appropriate.
- Wherever possible when weed species are being removed, allow for a percentage (5%) of standing trees to be poisoned or ring barked *in situ* and remain standing to provide habitat for lizards, invertebrates and wetas.
- Work with the local community and businesses adjacent to the reserves to develop a strategy to minimise the impact of feral and domestic animals in the reserves.
- Protect potential wildlife areas through the creation of dog restraint areas as appropriate.
- All natural habitats and ecosystems are to be identified, protected and where appropriate, enhanced, in order to increase the native biological diversity of the reserves.
- Identify and protect scarce and locally uncommon plant species throughout the reserves.
- Develop detailed planting plans for any planting carried out within the reserves as part of Council records.
- Investigate the use of artificial aids to habitat enhancement and the reintroduction of selected species in appropriate areas of the Creek Corridor.
- Ensure that all precautions are taken to minimise the risk of fire in the bush areas.
- Ensure that all Contractors carrying out work within the reserves fully comply with the provisions of the Auckland Regional Council's RPMS which is a legislative requirement under the Biosecurity Act 1993.

Policy 3.4

Identify and focus on priority areas for restoration.

Implementation

- Identify and focus on sites that contain significant flora or vegetation associations of ecological significance.
- Identify and focus on sites that contain habitats or are potentially suitable for birds, invertebrates and aquatic fauna.
- Identify sites as priorities that contain an existing buffer of surrounding vegetation, or the capacity to establish one.
- Work with Green Network and community groups to establish management programmes for priority areas.
- Ensure access to the restoration area of Henderson Creek Esplanade Reserve for community groups, contractors and other parties for





the purposes of reserve management, including planting, weed control, stormwater management and education.

Policy 3.5

Establish a monitoring programme to evaluate the progress and success of revegetation programmes and to identify ongoing maintenance and management requirements.

Implementation

- Establish a five year monitoring programme of weed control and revegetation plots to identify ongoing management and maintenance requirements.
- Replace dead plants.
- Adjust revegetation management according to the results of the monitoring.
- Evaluate and assess the success of restoration.
- Encourage the participation of local schools and community groups in monitoring and management of revegetation programmes.

Policy 3.6

To establish a programme for the progressive removal and/or control of weed species and minimise the effects of weed and animal pest invasion on the native flora and fauna within the reserves.

Implementation

- Establish and implement a staged programme for weed eradication and native revegetation along the stream riparian margins.
- Prevent the carrying out of any activity, or the effects of any activity, that is likely to establish, exacerbate or encourage the spread or growth of weeds or pests within the reserves.
- Ensure that the removal of infestations of smothering plants and serious environmental

weeds is a high priority because they prevent regeneration and smother natives.

- Implement and support a staged programme of weed control based on the priority areas and species identified in the current Henderson Creek Weed Management Plan. The species targeted as highest priority for removal within the reserves include the following;

High priority;

- kikuyu, Japanese honeysuckle, great bindweed, jasmine and ivy. These should be removed prior to revegetation planting and monitored and controlled until a continuous native cover has developed.
- kahili ginger, Chinese privet, yellow ginger, giant reed, bamboo, pampas and wandering jew. Most common in the mixed forest scrub in the upper reaches of the corridor and above the confluence (the area of best forest value).

Medium priority;

- wattle, willow and privet. Removal of these species needs to be undertaken in conjunction with revegetation.
- Ensure that weed control measures do not affect the natural ecological processes of regeneration and succession in native plant communities.
- Have regard to the priorities for weed removal as identified in the WCC Weed Strategy. Staging of this weed control is subject to Annual Plan funding and the City-wide weed control priorities.
- Monitor and discourage weed encroachment from neighbouring properties.
- Work with neighbouring properties to identify and remove potential garden escapees and invasive weeds establishing in the reserves eg jasmine and bamboo.
- Weed control will be in accordance with Council's current herbicide policy. Herbicide use should be minimised where possible.
- Reference the current WCC Weed Strategy and Auckland Regional Plant Pest Management Strategy to aid in identifying weed pests.

Policy 3.7

Establish a programme for predator control within the Creek reserves.



Implementation

- Identify actual and potential animal pests and predators.
- Investigate management options and establish priority areas for predator control. Where possible, establish the goal of eradication as opposed to control.
- Investigate the need to allocate 'dog free' areas and allow for this only where the presence of dogs would threaten or undermine conservation values.
- Work in liaison with the local community, MAF and in particular, the Auckland Regional Council, to establish and implement an appropriate pest strategy.
- Investigate options for undertaking a predator control programme in priority areas on the west bank.
- Educate neighbours along reserve environs to reduce the incidence of rubbish dumping to reduce rodents.
- Approach and work with neighbouring industrial developments to implement or support appropriate pest control measures on their land.
- Educate local residents regarding the dumping and straying of domestic pets.
- Implement an education programme to gain public understanding and support for pest control measures.
- Establish a method of monitoring predator control measures for effectiveness.
- Work with local schools, recreational clubs and reserves users to implement monitoring programmes.
- Work with ARC and/or other pest control professionals to ensure that realistic outcomes for any pest eradication programme are met without compromising public health and safety.

- Refer to the Auckland Regional Plant Pest Management Strategy for guidelines in identifying pests.

4.0 Cultural Heritage and History

4.1 Maori Cultural Heritage

As an estuarine tributary of the upper Waitemata, Henderson Creek is of significant interest to Maori and its protection and appropriate management is of prime importance. Moreover, the waterway itself has significance to Maori as taonga. Both Te Kawerau A Maki and Ngati Whatua have connections with the reserve areas. Research and investigation by Te Kawerau A Maki and Ngati Whatua is being undertaken on the history of the area and identification of archaeological sites and/or Waahi tapu sites and possible interpretation in order to implement the policies set out in this Plan.

Objective

To recognise, protect and, as appropriate, promote the Maori cultural and historical values of the reserves and their wider catchment, and to work in partnership with Iwi on the management of issues of significance on the reserves.

Policy 4.1.1

Recognise and provide for the mauri of any site or place of significance associated with the reserves.

Implementation

- Provide District Plan protection for all identified and recorded archaeological sites.
- Liase with Iwi to identify all sites and areas on the reserves that are of significance.
- In consultation with Maori, decide on the appropriate form of interpretation for sites of cultural significance within the reserves and the appropriate treatment of these sites.
- Discourage the introduction of additional elements or structures that detract from or degrade the existing Maori cultural values of the reserves.
- Develop a strategy for the appropriate interpretation of Maori cultural





values of the Creek and implement this strategy in a staged way over time.

- Identify appropriate sites on the Creek Corridor reserves for the location of pou-whenua in consultation with Te Kawerau a Maki and Ngati Whatua.

Policy 4.1.2

Provide for the customary use of native flora by Te Kawerau a Maki and Ngati Whatua and local Maori groups.

Implementation

- Implement planting programmes, in consultation with Te Kawerau a Maki and Ngati Whatua, that include plants for customary use such as for arts, *rongoa* (medicinal), ceremonial and food purposes.
- Support the implementation of *pa harakeke* planting, ie appropriate flax collection for customary use, especially weaving.
- Ensure that any cultural harvesting of plants is consistent with the Draft Cultural Harvesting Protocols.

Policy 4.1.3

Involve Iwi in the design and management of reserves.

Implementation

- Consult with Iwi in the design and management of the reserves, in particular with regard to proposed developments within reserves and the location of structures.
- Consult Iwi over management of priority restoration sites and any specific programmes to reintroduce native species.
- In consultation with Te Kawerau a Maki and Ngati Whatua, highlight any areas of tapu and investigate possible options, where appropriate, to discourage public access to those areas.

Policy 4.1.4

Recognise and provide for the protection of any site or place of archaeological significance associated with the Reserves.

Implementation

- Undertake archaeological assessments prior to any work involving terrain modification being undertaken within the reserves, this includes planting, fencing and power undergrounding.
- Liaise with Te Kawerau a Maki and Ngati Whatua over any issues associated with Maori archaeological sites.

4.2 European Cultural Heritage

The Henderson Creek Corridor has a rich history of European settlement. Because the existence of the Creek was fundamental to the location of the township itself, there are many sites of historical significance to Henderson within the Creek Corridor.

Objective

To recognise, protect and, as appropriate, promote the European cultural and historical values of the reserves.

Policy 4.2.1

To recognise and provide for the protection and interpretation of any site or place of historical significance associated with the reserves.

Implementation

- Support the appropriate restoration and use of the Tui Glen cottages including McLeods Cottage.
- Install appropriate signage relating to the history of McLeods Cottage.
- Carry out a thorough archeological survey and examination of all known and possible heritage sites located in the Henderson Creek Corridor reserves and, in conjunction with the West Auckland Historical Society, ensure that these sites are recorded, assessed and protected as appropriate. Where necessary, ensure that Conservation Plans are prepared.
- Work with the West Auckland Historical Society to develop and provide appropriate interpretation signs or other features for the historic brickwork sites in the reserves, following their proper



archeological assessment, as part of the Henderson Creek Heritage Trail.

- Work with the West Auckland Historical Society to develop an appropriate memorial in Henderson Creek Esplanade Reserve, to mark the location and history of Duncan's house and brickworks. Preferably, using some of the bricks unearthed in recent earthworks on the site and retrieved by members of the Historical Society for the memorial.
- Work with the West Auckland Historical Society to develop and provide appropriate interpretation signs or other features that tell the story of the area, in particular where a story is associated with a particular reserve, eg Swan's Arch Reserve.
- Work with the West Auckland Historical Society to extend and enhance the Henderson Heritage Trail through the reserves.
- Provide recognition for all heritage sites verified through the ARC Cultural Heritage Inventory or other recognised heritage assessment, including the brickworks sites, in the Henderson Creek Corridor Reserves, through the District Plan.
- Support initiatives of the Historical Society to protect and promote heritage sites in the reserves, such as the publication of Henderson Heritage Trail pamphlets.
- Prepare a Conservation Plan for the most significant sites (such as Tui Glen Motor Camp).
- Encourage and support the installation of artwork, park furniture, planting and other features that illustrate the heritage values of the reserves.
- Encourage and support the holding of exhibitions, events and gatherings within the reserves that acknowledge and celebrate cultural heritage.
- Liaise with the Auckland Botanical Society and the Cranwell family to investigate options for an appropriate memorial to the botanist Lucy Cranwell to be located in Cranwell Park.
- Investigate options for the establishment of an

information center where historical/walkway information could be made available to visitors.

- Continue to support the presence of the West Auckland Historical Society in Mill Cottage or in other premises as appropriate.
- Ensure that the site of Duncan's brickworks in the Henderson Creek Esplanade Reserve (northern section) is clearly marked and protected from damage by contractors during the revegetation work to be carried out in the reserve.

Policy 4.2.2

To recognise and protect all trees of historic or ecological significance within the reserves and ensure that they are maintained in accordance with the standards and techniques of approved arboricultural practice.

Implementation

- Identify and protect all trees of historic or ecological significance in the Creek Corridor, both exotic and native, building on the information in the Henderson Creek Tree Survey, July 2003.
- Provide for the protection of all identified trees through the provisions of the District Plan.
- Work with a qualified arborist to develop and implement a tree management plan for all significant native and exotic specimen trees, in particular those at Tui Glen and the three kauris in Henderson Creek Esplanade near the motorway.
- Carry out remedial arboricultural and tree surgery work on identified native and exotic trees, in accordance with the Henderson Creek Tree Survey, July 2003.
- Provide for the removal of those fir trees at Tui Glen that have been identified as suffering from canker.
- Ensure that walkways and other structures are kept clear of the roots of significant trees, where those trees are vulnerable to damage.
- Remove and replant any trees that are dead, dying or posing any hazard in accordance with the Parks Standards and management policies.
- Undertake a programme of specimen tree planting in reserves with large open space areas to improve the amenity values of these reserves and provide shade for open grass areas.





- Ensure that where appropriate, new or replacement plantings of specimen trees in reserves build on the existing framework of plantings.

5.0 Water Quality

Along the Henderson Creek there are a number of stormwater outfalls which discharge into the Creek and ultimately the Harbour environment. These stormwater outfalls significantly effect the water quality within the Creek and the quality of sediments, which support benthic fauna, providing food for fish and birds.

Key issues affecting the water quality of Henderson Creek include the dumping of rubbish, contamination from stormwater systems and stream bank erosion. Restoration of riparian vegetation along the Creek margins would reduce the inputs of contaminants associated with surface water runoff as well as provide better protection against erosion and sedimentation. The reduction of surface water runoff would improve water quality and instream habitat.

Objective

To restore and enhance the life-supporting capacity of the water in the Creek and waterways running through the reserves.

Policy 5.1

To improve overall water quality by reducing surface runoff.

Implementation

- Implement a programme of progressive riparian revegetation along the margins of the Creek and its tributaries to prevent erosion, decrease flooding and improve water quality.
- Where possible, establish a riparian buffer zone at least 10 m wide with 1-2 metres of ground

covering vegetation along the water's edge.

- Improve the quality of riparian vegetation particularly along those stretches of the Creek margin where localised flows of surface water are likely to be high and have greater contamination loading – eg roads, carparks and industrial sites.
- Minimise the amount and impact of surface runoff by utilising permeable surfaces wherever possible within the reserves, especially near the Creek margins.
- Encourage the introduction of innovative solutions to reduce runoff, eg grass carparks and swales.
- Plant thick grasses and appropriate wetland species to collect sediment runoff alongside roads and road boundaries.
- Work in conjunction with Ecowater to reduce the sediment load entering the Creek and the incidence and severity of flood events upstream in the catchment.
- Work with neighbouring industrial properties to reduce the amount and effects of runoff from large areas of hard surface, such as carparks, adjacent to the Creek.
- Integrate the informal west bank walkway with the Ecowater Solutions stormwater treatment ponds near Tolich Place and work with Ecowater Solutions to implement appropriate signage.
- Allow for access to stormwater infrastructure by Ecowater staff and contractors.

Policy 5.2

To reduce the amount of rubbish that is deposited in the Creek.

Implementation

- Encourage responsible rubbish disposal by members of the public and local residents.
- Supply rubbish bins in areas of greatest use in all reserves.
- Work with local businesses to implement programmes to reduce and recycle waste.
- Work with neighbours to reduce the illegal dumping of rubbish over boundary fences.
- Liase with local supermarkets to develop and implement a strategy to reduce the dumping of supermarket trolleys.



- Investigate the use of signs appropriately located in the reserves to highlight the impact of illegally dumping weeds.
- Support and implement education programmes to encourage responsible disposal of rubbish by local residents and members of the public.
- Establish a buffer along both sides of the Creek and all its tributaries to reduce the opportunities for vehicle access and rubbish dumping in the Creek and the reserves.
- Work with the community to undertake a cleanup of the rubbish and debris along the Creek to improve habitat quality and amenity values.
- Avoid disturbance of the existing layers of sediment in the Creek.
- Ensure that all new structures not required to be built within the riparian margin, are a minimum of 5 metres from the waters edge.
- Ensure that all bridges, walkways, boardwalks and jetties that are required to be built within the riparian margin are designed and built in such a way that they do not cause instability or erosion along the Creek banks.

Policy 5.4

To minimise the number and impact of stormwater outflows direct to the Creek.

Implementation

- Work with Ecowater Solutions to reduce the number and impact of stormwater outfalls.
- Work with all parties involved in developing and managing new leisure and other facilities in the reserves to implement innovative, low-impact stormwater management systems, such as swales and wetlands.
- Provide for continued liaison with Ecowater Solutions and the Auckland Regional Council to ensure that all stormwater entering the Creek is filtered to remove contaminants and sediments before entering the Creek.
- Ensure regular monitoring of water quality below stormwater discharge points.
- Encourage the introduction of innovative stormwater cleansing methods, (bioswales, infiltration basins, cesspit bags, first flush tanks).

Policy 5.3

To stabilise stream banks and reduce erosion and the input of sediments.

Implementation

- Restore a buffer zone of riparian vegetation, ideally along the entire length of the Creek, but at least along short stretches, to a minimum width of 10 m in order to stabilise stream banks, reduce erosion and reduce inputs of contaminants and sediments associated with surface water runoff.
- Ensure that the riparian buffer zone includes 1-2 m of native ground-covering vegetation along the waters edge.
- Select native species for riparian revegetation that have the ability to withstand occasional flood events.
- Encourage active recreational use in areas well clear of the Creek margins and other sensitive areas, preferably to a minimum of 20 metres, in order to reduce the likelihood of soil erosion along the Creek and estuary banks.
- Work with Ecowater Solutions to address issues of wider catchment management.
- Where possible, use biodegradable matting on steep banks to minimise erosion while plants establish.

Policy 5.5

To improve the quality of the Creek and its tributaries as habitat for native aquatic species.

Implementation

- Protect and enhance existing wetlands.
- Protect and enhance all areas of zonation from freshwater to saltwater, north to south and east to west, as habitat for spawning fish and education.





- Implement a monitoring programme to accurately measure the presence and condition of stocks of inanga and other migratory fish in the Creek.
- Undertake a comprehensive investigation into fish spawning habitat in the lower reaches of the Oratia and Opanuku Streams, in particular, looking for evidence of spawning in February and March.
- Identify areas supporting whitebait spawning and manage them to enhance the available habitat, improving fish access to these areas.
- Select naturally-occurring native plants for revegetation to increase channel shading, reduce overall water temperatures and fluctuations and provide food and cover for native fish.
- Maintain and improve the quality of the vegetation around the drainage channels and small tributaries flowing into Henderson Creek.
- Liase with Ecowater Solutions to improve upstream water quality and habitat.
- Replace the exotic species along the banks with evergreen native non-invasive species that will provide habitat for insect species with aquatic larvae.
- Select native trees that will provide an input of woody debris for bank stabilisation and habitat.
- Identify blockages to the passage of fish species in the Creek and its tributaries and remedy where possible.
- Encourage and support appropriate community involvement in caring for the stream.
- Establish a programme in conjunction with the ARC, the community and Ecowater to monitor the health of the Creek and its tributaries within the reserves.
- Liase with Ecowater to coordinate the implementation of Water Care plans.

6.0 Opportunities For People To Enjoy Nature On The Reserves

Henderson Creek forms a continuous corridor from the township to the sea, linking areas of high density residential, commercial, industrial and recreational use. Situated in the heart of Henderson, the corridor has the potential to be a flagship for Waitakere City's Green Network and Eco-City principles. The corridor reserves provide ready access to open space, a range of natural habitats and a tidal estuary. With careful planning and management, it would be possible to see the reintroduction of local, endemic, large and interesting species, such as kereru and tuis, skinks, fern birds, and kowhai, in designated areas of the reserves.

Objective

To increase opportunities for people to enjoy nature on the reserves.

Policy 6.1

To increase public understanding of environmental values and processes.

Implementation

- Develop a Nature Trail/informal walkway along appropriate sections of the west bank that demonstrates and promotes the objectives of the Green Network.
- Ensure that the boundaries between ecological restoration areas and the areas marked for active recreation, are clearly identified and easily adhered to by all user groups.
- Develop low-impact public access to restoration areas such as boardwalks and viewing platforms.
- Encourage the use of artwork to identify existing natural habitats and ecosystems (as well as potential habitats and systems), and highlight biodiversity issues within the reserves.
- Involve the local community in any restoration efforts, including planting, pest control, weed eradication and the reintroduction of native species.
- Encourage stream monitoring and riparian restoration programmes with local schools, ensuring that projects are carried out using



approved Health and Safety Standards in areas where minimal damage can occur.

- Encourage the use of signs to highlight the work of Ecowater Solutions, such as litter traps, and to demonstrate other Council and Community initiatives.
- Facilitate, where appropriate, workshops with existing and new community groups.
- Use signs to identify scarce and locally uncommon native species in the reserves.
- Ensure that active recreation areas are those with lowest ecological values.
- Encourage the use and enjoyment of the reserves for outdoor events, gatherings and exhibitions that celebrate and complement the natural environment.
- Install signs at appropriate locations on the northern section of Henderson Creek Esplanade Reserve to highlight the revegetation programme being carried out in the reserve.

Policy 6.2

To facilitate public access to the Creek through the esplanade reserves where practicable.

Implementation

- Allow for access from private properties adjoining the reserves into the reserves to improve visibility, safety and use as appropriate.
- Identify areas where it is desirable that public access to the Creek be enhanced.
- Maintain and enhance access within designated access areas.
- Allow for the construction of two jetties on the Creek, the main one at Tui Glen and one on the esplanade reserve below the Waitakere Sports Complex, as indicated on the Concept Plans.
- Ensure that bridges and jetties are designed in a way that allows safe access to the Creek for fishing and eeling as appropriate.

- Allow access to the Creek and the water itself for approved ceremonial purposes in identified areas, where there will be no negative effect on the natural values of the Creek and the reserves, or on the recreational values of other users or on the reasonable expectations of neighbours, and ensuring that all appropriate Health and Safety Standards are met.
- Preserve occasional areas of minimum riparian planting in appropriate locations in order to allow access to and views of the Creek.
- Incorporate boardwalks and bridges into the walkway network as appropriate.
- Provide picnic areas and park furniture in locations that maximise views of the Creek and wetlands.
- Ensure that the revegetation programme allows some areas of low riparian planting to maintain views of the water and visibility from the opposite bank of the Creek.

Policy 6.3

To establish guidelines for all commercial activity on the reserves to ensure the retention and enhancement of reserve values and use.

Implementation

- Commercial activity will not be permitted within the reserves unless it meets the following criteria:
 - a) is in accordance with all statutory regulations and local bylaws affecting the reserve;
 - b) will be in accordance with the Objectives and Policies of this Plan;
 - c) priority will be given to activities, which take advantage or benefit from the natural character values of the reserves and will not detract from the existing character and use of the reserves;
 - d) no commercial activities will be permitted in the reserves, which have the potential to damage native flora and fauna;
 - e) the commercial activity will generally provide a benefit to the public, which is greater than any adverse effects caused;
 - f) the commercial activity will not cater exclusively to any one sector of the public except where this is provided for and is appropriate in terms of the objectives and policies of this Plan.
- Draft a formal agreement between Council and South Pacific Pictures that sets out the provisions and conditions for the continued access, use, maintenance and restoration of designated parts of the





Henderson Creek Esplanade Reserve by South Pacific Pictures. Ensure that the provisions and conditions of this agreement are in accord with the Council's statutory and strategic requirements and the overarching goals of this Management Plan.

7.0 Landscape Values

7.1 Structures in the Reserves Environment

There are a number of buildings and utilities located within the Henderson Creek Reserves. These are generally public facilities including clubrooms, sports fields, bridges, playgrounds and memorials. There are also a number of historic structures that are located on and adjacent to the reserves including those identified in the Concept Plans Part 3. As the provision of buildings and utilities in the reserves has the potential to adversely affect the character of the reserves, they should be located as to not detract from the recreation and amenity values of the reserves.

It is natural for the landscape to be altered by physical processes over time. Care should be taken that the impact of human use and development of the reserves does not have a negative impact on the natural processes on the landscape.

Objective

To protect and enhance the natural character and landscape values of the Henderson Creek reserves and ensure that the potential adverse effects of structures and physical processes on the landscape are avoided, remedied or mitigated.

Policy 7.1.1

To protect and enhance the natural character and landscape values of the Henderson Creek reserves.

Implementation

- Utilise a range of specimen trees in the reserves. Where appropriate, build on the existing framework of species and historical plantings.
- Implement a programme of specimen tree planting in order to enhance existing landscape features and the amenity values of the reserves as well as providing shade and shelter.
- Plant kowhai (*sophora microphylla*) in groupings along the walkway as appropriate to create a walkway "insignia".
- Ensure that an arborist inspect the International Walkway Of Trees, to oversee the removal and replacement of those specimens that have died or are not flourishing, with species that are more appropriate to their location.
- Encourage and support community participation in the planting and care of specimen and commemorative trees.

Policy 7.1.2

To reduce the impact of physical processes on the landscape values of the Creek Corridor, the estuary and associated wetlands located within the reserves.

Implementation

- Prevent activities that will compromise the natural formation and stability of the Creek banks, tributaries and estuary areas.
- As far as is practicable, seek the implementation of soft engineering solutions to erosion problems.
- As far as is practicable, seek the implementation of soft engineering solutions to stormwater collection and treatment.
- Investigate options for the use of an appropriate permeable paving surface on the eastern walk/cycle way in future development.



7.2 Physical Processes

Policy 7.2.1

Ensure that utility services are only located on a reserve if required for some function of the reserves.

Implementation

- Ensure that, where possible and appropriate, existing and proposed utility services are well integrated into the reserves environment.
- Ensure that any proposed utility services are only located in the reserves if required for some function of the reserves.
- Do not allow any telecommunication towers or aerials (including cell sites) on the reserves unless they are for the exclusive benefit of the reserves and have no adverse effects on the reserves environment.

Policy 7.2.2

To minimise the number and impact of structures (jetties, buildings, signs, bridges), required to provide for the public use and enjoyment of reserves.

Implementation

- Avoid developments within the reserves and where possible, along their boundaries, which have adverse effects on the landscape, particularly when the development can be viewed from the reserves.
- Ensure that all structures are designed and placed in such a way that they do not impact negatively on views within and around the reserves.
- Provision for any new buildings or structures other than those identified in this Management Plan will not be permitted within any of the Henderson Creek esplanade reserves. Extensions to existing buildings will be assessed according to 7.1.3.

- Allow for structures that give access to the water, ie foot bridges, boardwalks and jetties, only where they do not have a detrimental effect on landscape or ecological values (see Concept Plans).
- Allow for the replacement and upgrade of existing structures as necessary.
- Work with neighbouring properties to encourage the use of appropriate materials or planting to minimise the visual impact of boundary fences. Wherever possible, encourage low and permeable fences.
- Reduce the number of graffitiable surfaces available within the reserves.

Policy 7.2.3

To ensure that any new structures or additions to existing structures are designed to complement the open space character of reserves and improve their identity without compromising the natural character of the estuarine environment.

Implementation

- Encourage and support the input of local artists to the design, construction or renovation of park structures wherever possible and within the Parks budget.
- Ensure that all reserves signs are of a consistent and high quality standard and appropriate style.
- Ensure that the reinstatement of historic water access in Tui Glen is in a style appropriate to the historic nature of the reserve and environs.
- Any proposal for addition of or extension to a building or structure within a reserve must meet the following criteria;
 - The need for the structure to be within the reserve
 - The need for the structure to be sited in the location identified
 - The protection of archaeological or heritage areas from disturbance
 - The protection of public views
 - The maintenance of the reserves character
 - The contribution of the structure to the quality and experience of the reserve
 - The public benefit obtained from the structure
 - A minor impact on the immediate neighbourhood
 - An ability to meet relevant District Plan requirements
 - An ability to meet the objectives and policies of this Plan
 - Effects on landscape when viewed from the Creek





- Utilise appropriate design guidelines and building materials, including utilising permeable and semi-permeable paving options wherever possible so as to reduce the quantity of stormwater runoff.
- Ensure any design for structures in the parks includes involvement from Te Kawerau a Maki and Ngati Whatua, as outlined in Policy 4.1.3.
- Work with Auckland Conductive Education Center to ensure that the building extension on their premises does not have a negative impact on the natural or heritage character of Tui Glen.

Policy 7.2.4

To provide park furniture, including litterbins, seats, signs and barbeques at an appropriate level to cater for local and visitor community use with the reserves and ensure that they are designed and located in a way that minimises visual impact on the reserves.

Implementation

- Provide seating at appropriate points along the walkway/cycleway, at viewing spots, picnic areas, nature trail, and other locations.
- Provide public toilets only as and where necessary for the benefit of City-wide users.
- Where possible, signs will be amalgamated in order to reduce the overall number of signs and all signs will be in accordance with the WCC Code of Practice, Parks Guidelines.
- Provide litterbins as required.

Policy 7.2.5

To adopt a unified approach to the design of site furniture, facilities and signs.

Implementation

- The design of park furniture should be in accordance with Council's Parks Design Guidelines.
- Apply high standards of design and materials to all

site furniture and facilities.

8.0 Access, Parking and Circulation

Public submissions indicate a significant demand for the completion of a full circuit mixed walkway and cycle way through the Creek reserves. There is growing pressure on the carparking facilities associated with some of the reserves, particularly those associated with sports or other recreational facilities. The Waitakere Stadium Sports Centre, Henderson Bowling Club, the Aquatic Centre, and Falls Park all require parking by local users and City-wide visitors on or adjacent to the reserves. Celebrations, ceremonies, concerts, exhibitions and one-off events similarly place demands on existing access and parking in the reserves.

Objective

To minimise obstacles to free access, parking and circulation without compromising the natural or recreational values of the reserves.

Policy 8.1

To improve pedestrian and cycle access to and between the reserves.

Implementation

- Improve and strengthen pedestrian linkages to outlying streets and within the reserves in order to create walkway circuits and offer a variety of walkway experiences.
- Support initiatives that strengthen the pedestrian links between Henderson Town Centre and the walkway.
- Investigate options for linking the corridor walk/cycleway through Cranwell Esplanade Reserve to Opanuku Esplanade Reserve, including the option of a path under Great North Road.
- Identify those neighbours that are encroaching over reserve boundaries and impeding public access. Work with them in order to clarify boundary issues and guarantee public access to reserve land.
- Improve and upgrade pedestrian access and entrances to reserves from surrounding streets.
- Investigate the use of signage such as 'you are here' maps, or



- signifiers to highlight access points in the reserves.
- Investigate the use of 'signifiers' (such as walkway tiles) rather than signs, leading to access points and linking the reserves with adjacent streets and footpaths.
 - Locate signs or signifiers indicating access to the reserves at strategic locations on nearby streets and shopping centres.
 - Install appropriate signage directing cyclists to the entrance on Sherwood Avenue from the North West Cycle Route.
 - Liaise with roading and traffic to investigate the location of signs indicating access points to the cycle/walkway from surrounding streets.
 - Improve and upgrade access points located near retail areas and other areas of heaviest pedestrian use.
 - Ensure that access points are highly visible and are located in areas of high use and visibility.
 - Ensure that vegetation above .5 m high is kept to at least 0.5 from the edge of the concrete path for the convenience and visibility of users wherever possible. Where planting abuts the path, this may be achieved by planting low plants, ground covers and grasses.
 - Encourage the use of public transport to the reserves. Wherever possible, locate reserve access points near to public transport nodes or where this is not possible, locate signifiers at appropriate nodes.
 - Restrict vehicle access onto sensitive areas such as grass or Creek margins, through the use of bollards and/or fencing.
 - Provide for some carparking that gives views of the reserves and Creek.
 - Provide for some parking that gives easy access adjacent to the reserves and the walkway for disabled visitors.
 - Provide for some short-term carparking at appropriate 'drop off' points adjacent to the walkway.

Policy 8.2

To reduce the amount of vehicle traffic requiring carparking space by improving pedestrian and cycle access to the reserves.

Implementation

- Encourage walking and cycling to reduce the number of people taking cars to the reserves.
- Investigate opportunities to create a direct pedestrian/cycle linkage from Central Park Drive to the eastern walkway by developing access to Henderson Creek Esplanade across the new footbridge to Sherwood Park.

Policy 8.3

To provide for a variety of carpark locations while managing vehicle parking so as not to compromise the natural character of the reserves.

Implementation

- Provide additional formal carparking at those reserves with high usage recreational facilities only as required and according to Council's Code of Practice.
- Provide formal parking in appropriate streets adjoining the reserves, as necessary.
- Utilise permeable surfaces for new carparking, or the upgrading of existing carparks or roads within the reserves and ensure that such works are in keeping with the natural character of the area.
- Undertake amenity planting where possible, to mitigate the adverse visual effects of carparking, and to provide shade in carparking areas.
- Implement soft engineering solutions and planting to mitigate the effects of any additional surface water flow resulting from the creation of carparking or roading within the reserves.

9.0 Administration and Management

The structure for administration or day-to-day management of the reserves is primarily established in the context of the Reserves





Act 1977. Consideration also has to be given to the District Plan prepared under the Resource Management Act 1991.

The effectiveness of this Management Plan needs to be constantly monitored.

Council By-laws equally, need to be integrated within the intent of the Management Plan. This is particularly important in respect to the interface between reserves, dog control and public behavior within the reserves.

Objective

To ensure the reserves are managed in terms of their reserve classifications for the enjoyment and use of the local and regional community, now and in the future.

Policy 9.1

To classify all reserves appropriately according to their use and value in order to best ensure their continued protection and use.

Implementation

- All reserves covered by this Management Plan shall be appropriately classified and gazetted according to Council policy under the Reserves Act 1977.
- Ensure that any additional parcels of land, which may be added to the Henderson Creek reserves in the future, are classified appropriately in terms of their contribution to the Green Network and the existing reserves framework.

Policy 9.2

Any activity or development not provided for under the Policies and Implementation in the Management Plan will not be permitted unless such an activity or development at least complies with the District Plan rules for Open Space Environment and the General By-laws 1990.

Policy 9.3

The actions identified in the Policies are necessary to achieve the objectives of the Management Plan. To implement the actions outlined within each Policy of this document, Waitakere City Council will follow an Annual Plan process to allocate funds for these actions.

Policy 9.4

To provide for user concessions by way of permit for special events as detailed in Policy 6.3.

Implementation

- Grant permits for temporary concessions or events for the use of areas of the reserves that are compatible with the objectives for the reserves and in accordance with policy or implementation under this Management Plan. Applications must be made to the Manager of Parks, who may consult with the Community Board as required to assess such applications.
- Allow permits for hire related to recreational opportunities, including water recreation, in appropriate sites as approved by the Manager of Parks.
- Permits for special events may incur an additional bond or charge in respect to the potential for damage or the need for remedial works.
- Concessions may be granted in respect to refreshments and for wheeled transport compatible with the values of the reserves.

Policy 9.5

To use the control of lease agreements to ensure the most effective and equitable use of the Henderson Creek Reserves and facilities.

Implementation

- Continue the leasing of areas of land within the reserves to provide for community use and well-being. The leases of facilities such as buildings will be reviewed when the opportunity arises, to ensure maximum potential of the reserve is realised for the community.
- Ensure that new applications for leases conform to the criteria as set out in the Community Assistance Policy and Parks Strategy. In addition the applicant will need to satisfy the Waitakere City Council that the proposed use:



- Will be in accordance with the Objectives and Policies of this Plan;
 - Will be in accordance with the Reserves Act 1977;
 - Will not detract from the existing environment and use of the park;
 - Will generally provide a benefit (or benefits) to the public which is greater than any adverse effect caused by granting the lease
 - Is in an appropriate location;
 - Will not cater exclusively to any one sector of the public, except where this is provided for and is appropriate in terms of the Objectives and Policies of this Plan.
- Revise and renew all existing leases in accordance with the criteria listed above.
 - Negotiate and conclude a lease with the Auckland Conductive Education Centre for the extended area they wish to occupy on Tui Glen Reserve.

Policy 9.6

To keep this Management Plan under regular review.

Implementation

- Address changes to the emphasis or specific policies of this Management Plan by following the Amendment to a Management Plan process as outlined in section 41(2) of the Reserves Act.
- Undertake a full review of the entire Plan within ten years of the date of approval.

10. Electricity Transmission Infrastructure

Objective

To ensure that the existing electricity infrastructure in the reserves is recognised and protected and that the enhancement and management of the reserves takes into account the unique requirements of this infrastructure base.

Policy 10.1

To liaise with infrastructure providers.

Implementation

- Liaise with infrastructure providers to ensure that appropriate development and management of the reserve is undertaken.

Policy 10.2

To ensure that existing transmission lines have adequate separation distances between the ground, vegetation, buildings and structures in the reserves.

Implementation

- Ensure that buildings and structures have adequate separation distances from infrastructure. Follow the guidelines set down in the New Zealand Code of Practice for Electrical Safe Distances, NZECP 34:2001, in order to reduce the risk of flashovers or contact with live conductors by mobile plant and buildings or structures.
- Protect the integrity of the infrastructure and ensure public safety, by ensuring that adequate separation distances (as specified in the NZECP 34:2001) between the ground and transmission line conductors are maintained.
- Protect the integrity of the infrastructure and/or public safety, by ensuring that the type and location of any trees planted on the reserve are selected so that no part of the trees will grow to a point where they will encroach on the necessary 4m clearance distance from Transpower's conductors.

Policy 10.3

To maintain access to existing electricity infrastructure, maintenance and upgrading.

Implementation

- Provide for the continued and unrestricted access, inspection, operation, maintenance (including vegetation trimming subject to approval from Council's arborist), and upgrading of the existing electricity infrastructure that traverses the area covered by the Reserve Management Plan.
- Ensure ongoing liaison between Transpower and Council regarding vegetation clearance or trimming in the reserve. In particular, require





notification to the Parks dept prior to vegetation clearance, in order to minimise the impact on the existing vegetation or proposed revegetation in the Henderson Creek Esplanade Reserve.

- Require that Transpower consult with Council's Parks arborist prior to any work, including pruning, being carried out on any trees of significance identified in the Henderson Creek Tree Survey.
- Ensure that all tree works be carried out in accordance with modern arboricultural practices and in particular, that all pruning practices shall be in accordance with the principles of natural target pruning techniques.

Policy 10.4

To prevent damage to the existing electricity infrastructure caused by excavation.

Implementation

- Ensure that any excavation near towers complies with the safe separation distances specified in the NZECP 34:2001 so that the stability of the towers is not threatened.

Policy 10.5

To minimise public access to and around the electricity infrastructure.

Implementation

- Ensure that, wherever possible, walking tracks and other structures are located and designed to discourage public access to and around the electricity infrastructure.

