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Hutt River Floodplain Management Plan:

Hutt River Environmental Strategy

A strategy for the development and management of the Hutt River Environment

Publication No: WRC/FPSA/G 00/19

Produced by: **Flood Protection Group**

On behalf of: **Te Ati Awa/Taranaki ki te Upoko o te Ika a Maui, Upper Hutt City Council, Hutt City Council and Wellington Regional Council**

Opening comments from the Chairman of the Wellington Regional Council

I know that the Hutt River and its environment are dear to the hearts of Hutt Valley residents and are valued by the wider region. The importance of this river environment is such that we have developed a vision for the cohesive and integrated environmental management of the river and its margins as a "Linear Park".

The Environmental Strategy sets the strategic direction for achieving the Linear Park vision. It has been developed as a joint project between iwi, Upper Hutt City Council, Hutt City Council, and the Wellington Regional Council.

The Regional Council has adopted this Environmental Strategy, with the support and endorsement of the Upper Hutt City Council and the Hutt City Council through public consultation. The community endorsed the Linear Park vision for the river as the preferred option of three management scenarios. The Hutt River Environmental Strategy is now a key component of the Hutt River Floodplain Management Plan.

Principles contained within the Environmental Strategy will be incorporated into the structural design phase of the Hutt River Floodplain Management Plan but will not compromise the Hutt River flood defence systems.

I would like to take this opportunity, on behalf of the Regional Council, to thank everyone involved in producing this Strategy, including the Hutt Valley communities, the Hutt City Council, the Upper Hutt City Council and tangata whenua.

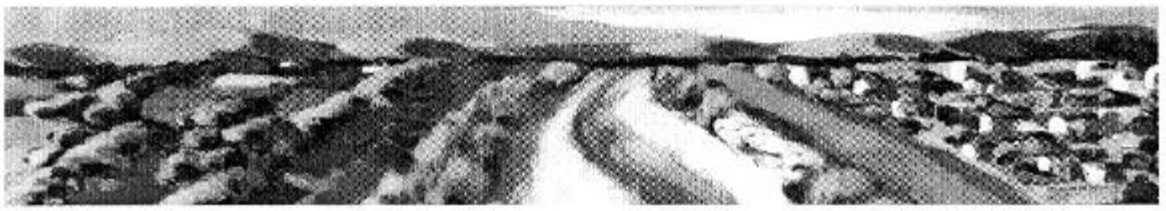
In a community effort such as this, every contribution is valued. The Hutt River Environmental Strategy has been two years in the making and is part of a larger process of developing and enhancing strategies to manage the Hutt River Floodplain.

The Environmental Strategy is a living document with a long-term vision. It will change over time and be further developed. Your continuing involvement in the Strategy's implementation will keep it alive and reflect the changing needs of the community.

From here, we can now look forward to bringing the Strategy to life and realising the benefits as the Linear Park is developed alongside the Hutt River.

Stuart Macaskill

STUART MACASKILL
Chairman, Wellington Regional Council



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1 Introduction and Key Recommendations

With over one million people visiting each year, the Hutt River has more visitors than any of our Regional Parks. Given its close proximity to major population centres, the Hutt River is a unique resource of tremendous value to the local community. While the river and its banks are well used at present, there are still plenty of opportunities for further enhancement of both the recreational experience and other amenity values.

The Regional Council, Hutt City Council and Upper Hutt City Council are primarily responsible for the management of the river and its corridor. There are also a number of groups and individuals interested and involved in what happens around the river, for example iwi, recreational clubs, Rotary and community boards.

Each of these parties has its own objectives for managing, protecting and enhancing the river environment. Currently, this is undertaken in an ad-hoc manner, with no overall "vision" for the river. This joint Wellington Regional Council, Upper Hutt City Council and Hutt City Council Environmental Strategy provides a blueprint for the co-ordinated future environmental management and enhancement of the river corridor area, in both the short and long-term. Funding of the Environmental Strategy will be determined through the councils' annual and long-term financial planning processes. There is the potential for other agencies and interest groups to contribute to the implementation of projects identified in this Environmental Strategy.

This document presents the community's long-term vision for the Hutt River and its corridor. It also describes the means for achieving that vision. The overall vision and key recommendations follow, and described and explained in detail in subsequent sections.

The Long-term Vision for the Hutt River and its margins from Wellington Harbour to Kaitoke Regional Park is:

The river and its corridor are developed as a linear park that provides a tranquil environment where people can go to escape the hustle and bustle of urban life, and enjoy the natural character of the river environment.

1.1 Themes Affecting the Whole Hutt River

Ecosystems and Ecological Processes

Long-term Vision

We have protected and enhanced the ecological values of the river and its margins.

What we need to do to achieve the "vision"

- Involve everyone and find a balance between all the different people who love our river.
- Take into account and provide for ecological processes.
- Prepare an Ecological Management Strategy for the Hutt River catchment.
- Allow regeneration of indigenous plants.
- Plant native species eco-sourced from the Wellington Ecological District wherever possible.
- Trial the use of salt-tolerant species in estuarine reaches.
- Seek co-operation of other agencies in managing the ecosystems of the Hutt River and its margins.
- Minimise the use and impacts of willows along the river margins.
- Plant wet ground, backwaters and tributaries first.
- Link existing native habitat remnants and enhance ecological corridors.
- Control pest and weed species and fence remnants wherever possible.
- Leave flood debris in the channel wherever possible.
- Incorporate ledges onto bridges for nesting birds.
- Remove or provide bypasses for structures that restrict fish passage.
- Construct eddies, backwaters and pools in conjunction with river control works wherever possible.
- Plant riparian margins wherever possible.
- Control landuses in the upper catchment to avoid deterioration in water quality.

Maori : History and Cultural Values

Long-term Vision

We have protected and enhanced the cultural values of the river and its margins.

What we need to do to achieve the "vision"

- Plant riparian margins and recreate wetlands wherever appropriate.
- Plant species of cultural importance wherever appropriate.
- Prepare a plan for the review of all existing sites and areas of cultural significance and their future management and protection.
- Protect sites and areas of cultural significance.
- Erect information boards at sites of cultural importance wherever appropriate.
- Encourage and allow tangata whenua to become actively involved in river management
- Allow for traditional uses of the river and its margins wherever possible.

Contemporary History

Long-term Vision

We have protected and enhanced the historic values of the river and its margins.

What we need to do to achieve the "vision"

- Consider using tree species of historic value.
- Establish a heritage trail and erect information boards at sites of historic importance wherever appropriate.
- Take into account the need to protect sites of historic importance wherever appropriate.

Landscape and Visual Quality

Long-term Vision

We have protected and enhanced the visual quality of the river and its margins.

What we need to do to achieve the "vision"

- Provide a mix of open and planted areas, including planting around the perimeter of sports fields.
- Provide a mix of well-maintained and "wilderness" areas.
- Mow berms to an agreed standard in harmony with the predominant landscape values.
- Position groups of plants to screen river users from roads, and to provide a variety of experiences within the river margins.
- Open up views through willows by introducing gaps or pruning.
- Discourage vandalism by use of sturdy structures, anti-graffiti paint, regular maintenance and policing.
- Discourage littering with signs, policing, regular rubbish checks and clearance.
- Design all structures and site furniture to a high standard that complements the character of the local area.
- Store visually intrusive flood protection materials in screened sites.

Community / Tangata Whenua

Long-term Vision

Iwi and the community are involved in decision-making and tikanga is appropriately applied.

What we need to do to achieve the "vision"

- Ensure ongoing tangata whenua and community input into the management of the Linear Park.
- Establish community links to the river and its margins.
- Encourage the use of the river and its margins for community festivals and events.
- Investigate opportunities for using the river and its margins in education initiatives.

Recreation

Long-term Vision

We have improved and extended passive recreational facilities.

What we need to do to achieve the "vision"

- Develop a unified, consistent signage system.
- Produce recreation guides.
- Allow for commercially operated informal activities at appropriate locations.
- Control access and provide information on specific use restrictions and allowed uses.
- Provide adequate car parking at key locations.
- Create and maintain access to and along the river.
- Bring the Linear Park into public ownership or formalise access across private land.
- Upgrade and extend tracks.
- Improve access across, beneath and to bridges.
- Employ a river ranger.
- Provide and maintain facilities.

1.2 The Hutt River by Area

Rivermouth and Harbour

Long-term Vision

We have enhanced the estuarine character of the river mouth. We have developed the Seaview Harbour edge, recognising and building on the industrial/urban character of the area.

What we need to do to achieve the "vision"

- Plant the river edges using estuarine/coastal species.
- Restore native habitats along the lower reaches of Waiwhetu Stream (tying in with the Waiwhetu Stream Rehabilitation Project).
- Develop a walkway from Estuary Bridge to Seaview Marina.
- Improve recreational links around Estuary Bridge.
- Improve recreational links between the Hutt River Trail and the banks of the Waiwhetu Stream
- Re-excavate the reclaimed land by the Waiwhetu Stream mouth to create a small marina (*).

Ava

Long-term Vision

We have emphasised the estuarine character and have created habitats using native coastal and estuarine species.

What we need to do to achieve the "vision"

- Plant native estuarine species along Black Creek, Te Momi Stream and Sladden Park boat ramp area, to provide whitebait-spawning habitat.
- Use block planting on the berms to create visual interest, recognising the importance of open space for local community recreation.
- Maintain and enhance visual connections between the berms and the river and estuary.
- Provide platforms on Estuary Bridge to fish off and restrict fishing from between the central bridge piers to allow easy access for boats and kayaks.
- Investigate the feasibility and benefits of re-introducing throughflow to Te Momi Stream.

Central Business District

Long-term Vision

We have developed a unique identity for the "City Section" of the river connecting the Central Business District with the Hutt River, while recognising the importance of the river and its berms as a waterside open space.

What we need to do to achieve the "vision"

- Replace willows along bank edges with more a "formal" river edge giving access down to the water, with specimen trees and other planting on the berms.
- Use more formal planting/planters and steps to link landward and riverward sides of the stopbanks.
- Incorporate river edge tracks to create walking/jogging track loops between Ewen and Melling Bridges.
- Remove car parks to give greater emphasis on recreation uses.
- Strengthen pedestrian links to and from the Central Business District.

Avalon

Long-term Vision

We have used planting to enhance the recreational experience.

What we need to do to achieve the "vision"

- Plant both berms to screen the road (still allowing for views of the river from the road at some points) and to create interest along the access tracks.
- Improve visual and physical connections between the berms and the river.
- Rationalise motorised vehicle access.
- Create picnic spaces linked to existing openings to the river.

Taita

Long-term Vision

We have enhanced the eastern berm as an important recreational area for the local community.

What we need to do to achieve the "vision"

- Plant the eastern berm to improve the visual quality, with variety and picnic spaces.
- Improve the visual connections with the river.
- Improve community links with the river, for example, walking tracks linking the Hutt River Trail with open areas in Taita.
- Control motorised vehicle access to the eastern berm.
- Plant the western berm to link the western hills with the river and provide a backdrop for the eastern berm.

Taita Gorge

Long-term Vision

We have strengthened the recreational spaces and restored large areas of habitat.

What we need to do to achieve the "vision"

- Manage the willows in the former tree nursery to enhance picnic spaces.
- Improve recreation links along the river, including a footbridge across Hull's Creek.
- Plant the eastern berm to screen the road.
- Create ecological corridors along the river and to the western and eastern Hutt Hills with large-scale lowland forest restoration (*).

Heretaunga

Long-term Vision

We have linked Barton's Bush to a wider ecological network, enhanced the recreational experience and emphasised the relationship of the berms with the river.

What we need to do to achieve the "vision"

- Create ecological corridors along the river and to Barton's Bush with large-scale lowland forest restoration (*).
- Investigate the feasibility and benefits of re-introducing flood flows into Barton's Bush.
- Plant eco-sourced native trees to buffer the eastern berm from urban development.
- Plant strategic blocks of eco-sourced natives on the western berm to screen the road (while maintaining the view of the river from the road).
- Maintain exclusion of motorised vehicles.

Moonshine

Long-term Vision

We have enhanced the character of the berms as a riverside park.

What we need to do to achieve the "vision"

- Plant more eco-sourced natives to create visual variety and screen the State Highway.
- Redevelop the Whakatikei River confluence as an important recreational focal point, with car parks, picnic areas and eco-sourced native plantings.
- Improve the visual connections with the river.

Totara Park

Long-term Vision

We have restored large areas of lowland forest and wetland habitats linking the river with the western hills and have improved and extended access tracks.

What we need to do to achieve the "vision"

- Recontour and plant the area immediately downstream of Totara Park to restore wetland and lowland forest habitats (*).
- Improve the view of the river from the berms.
- Plant the eastern berm to screen the access tracks from the road (while maintaining views of the river at some places).
- Plant specimen trees such as totara and beech to enhance existing sports fields.

Maoribank

Long-term Vision

We have strengthened the community links with the river and the recreational values.

What we need to do to achieve the "vision"

- Create a community park on the landward side of the stopbank for Totara Park residents.
- Plant totara and beech to strengthen the local identity.
- Enhance Maoribank corner and swimming hole as an important recreational focal point.
- Replace the former swing bridge at Maoribank corner with a footbridge (*).

Birchville

Long-term Vision

We have protected and enhanced the natural character, and maintained and enhanced access to and along the river.

What we need to do to achieve the "vision"

- Formalise access to and along the river.
- Plant eco-sourced natives to define and enhance access points to the river.
- Plant beech trees to enhance the local identity.
- Improve and extend walking tracks to link with other trails and other areas.

Te Marua

Long-term Vision

We have preserved a natural backdrop to the river and formalised public access along the river.

What we need to do to achieve the "vision"

- Formalise access to and along the river.
- Extend existing and create new access tracks along both banks linking Kaitoke Regional Park to the Hutt River Trail.
- Secure reserve land along the river wherever possible to create ecological corridors.

Kaitoke Regional Park

Long-term Vision

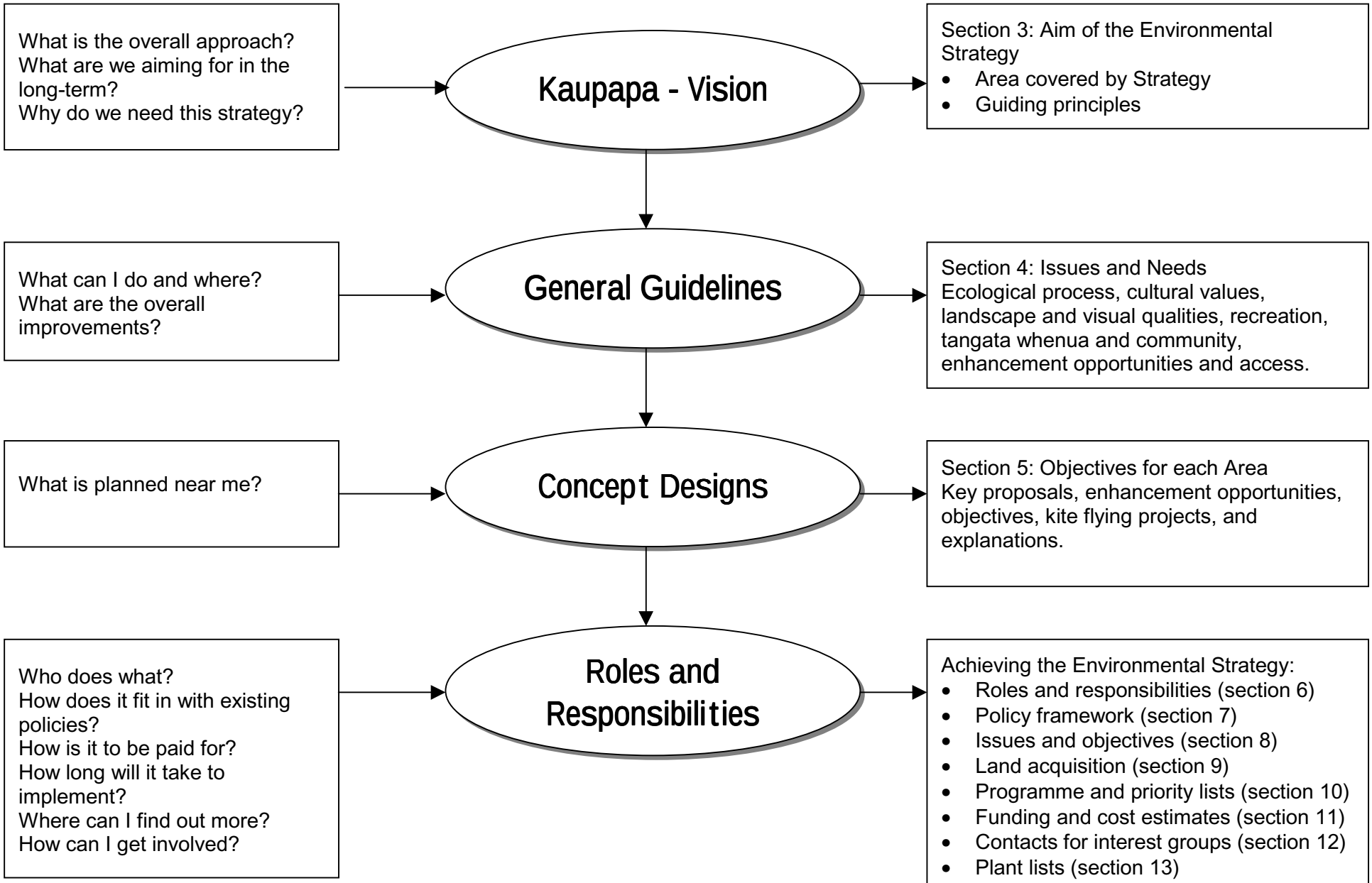
We have reinforced the natural, indigenous character and linked Kaitoke Regional Park with the Hutt River Trail.

What we need to do to achieve the "vision"

- Plant eco-sourced native species only.
- Establish recreational trails linking the regional park with the Hutt River Trail.
- Link trails with the historic logging route on the western bank.
- Install a footbridge linking the historic logging route across the river into Kaitoke Regional Park.

(*) These are called "kite-flying" ideas. They are projects that we think would be great and would fit in well with the overall "theme" for each reach, but will involve significant investment, land purchase and a whole host of other changes. Some of the land is privately owned and we have no intention of directing what a landowner should do with his or her land. We have taken a step back and have looked at the Hutt Valley as a whole, regardless of who owns the land. We have suggested these "kite-flying" projects, not on the basis that they should go ahead, but that it would be great if they did. The feasibility (including the wishes of the landowners involved) and benefits of each of these projects will have to be considered carefully before any further steps are taken towards implementing them.

2 Report Structure



3 Kaupapa – Vision

The river and its corridor developed as a linear park that provides a tranquil environment where people can go to escape the hustle and bustle of urban life, and enjoy the natural character of the river environment.

The Hutt Valley communities place high value on the "natural" character of the Hutt River and its margins. Recognition of this is fundamental to the linear park concept. It will provide a place accessible to the urban populations of the floodplain, where they can go and walk their dogs, picnic by the side of the river, swim in pools and simply enjoy "getting closer to nature".

The Hutt River Trail and footpath/cycle networks are already immensely popular. Improving and extending access to and along the river is a key component of the linear park. It is critical that we ensure that conflicts between users are dealt with fairly and reasonably. We will retain existing sporting facilities, but the focus will be on enhancing the natural character of the river rather than on providing more facilities. Significant opportunities exist alongside the river for providing information about existing cultural and historic sites within the river corridor, and for providing for species of cultural importance in native planting programmes.

Iwi have a special relationship with the river and its floodplain. This Environmental Strategy recognises this special relationship and allows for the ongoing participation of tangata whenua in the management of their taonga.

Numerous agencies, community groups and landowners have an interest or a role to play in the Hutt River and its environment. Each of these parties has their own objectives and priorities for managing, protecting and enhancing the river environment. Overall co-ordination of their different roles will be essential to ensure that we are consistent, and to ensure that all opportunities and priorities for environmental enhancement are realised.

This Strategy is the first step in providing this overall co-ordination. It identifies a large number of enhancement opportunities within a consistent framework. It provides a reference point for everyone with an interest in the river environment. It also ensures that management options, as they occur, are consistent with the long-term vision.

The Strategy sets the direction for the management and development of the river and its margins. It does so at a strategic level, directing policy and identifying specific proposals for implementation. These proposals are indicative only, and require further design and consideration to be implemented. We would welcome your comments.

3.1 Purpose and Guiding Principles

The Environmental Strategy's purpose is to guide management of the Hutt River and its corridor, while ensuring the integrity of the flood defence system, in a way that:

- Maintains and enhances the river environment.
- Provides for a range of recreational uses.
- Contributes positively to the community's spiritual, mental and physical wellbeing.

This overall purpose leads on to the following guiding principles. These have focused the development of the recommendations, proposals and concepts for the river and specific areas.

- Protect and enhance the ecosystems of the river and its margins.
- Protect and enhance the cultural and historic values of the river and its margins.
- Protect and enhance the visual quality of the river and its margins.
- Improve and extend passive recreational facilities.
- Allow iwi to participate in decision-making and appropriately apply tikanga.
- Provide for continuing community input.

The Environmental Strategy is part of the Hutt River Floodplain Management Plan and is governed by the Plan's principles. Accordingly, any proposals or activities covered by this Environmental Strategy will not compromise the integrity of the flood defence system.

3.2 Area Covered by this Strategy

The area covered by this Environmental Strategy runs from Kaitoke Regional Park in the north down to Seaview Marina. The majority of the land is in public ownership, whether administered by Upper Hutt City Council (UHCC), Hutt City Council (HCC) or Wellington Regional Council (WRC). Tangata whenua are the kaitiaki and have a traditional responsibility to look after it for future generations.

In determining the areas to be considered by the Strategy, we looked at the existing open space and habitat that had some connection to the Hutt River. Some of this land is already used for recreation, other areas are farmed or forested, and other areas are industrial.

While this Strategy cannot prescribe what an individual does with his or her land, it does include proposals for privately owned land. These proposals are made on the basis that this Strategy is long-term (40+ years), and that we should include opportunities for enhancing the river and its margins, even if privately owned, so that if opportunities arise in the future they will not be lost. The basis for the proposals relating to private land is made from a holistic standpoint that considers the river as a whole.

The recommendations and proposals in the Strategy place no additional obligations upon any of the parties involved. Instead they are actions which can be adopted if funding is available. The Strategy contains proposals involving significant changes in the river environment. These changes can only be implemented incrementally, as funds and opportunities become available. Permission of the landowner must be sought and obtained before any projects are undertaken. Proposals within the Strategy are subject to the resource management process and resource consents may be required.

Did you know that…

When the Tory arrived, the Hutt River was called Heretaunga (meaning "mooring place") but was renamed after Sir William Hutt, MP, one of the founders of the New Zealand Company. The river has also been called Te Awa Kairangi ("esteemed river") and Wai-Orotu (after an ancestor of the Ngati Mamoe).

Rimutaka means "heaped rimu", Tararua means "two peaks", Pakuratahi means "first swamp hen", Mangaroa means "long stream", Waiwhetu means "starry water", Akatarawa means "hanging clematis", and Pito-one means "end of land".

(Treadwell, C.A.L. 1959 *The Hutt River: Its History and Its Conquest* and
Kelleher, J.A. 1991 *Upper Hutt: the history*)

4 General Guidelines

These guidelines apply to the river at a general level, rather than to specific locations or sites. They either:

- direct what is appropriate within the Linear Park (for example, to control conflicting recreational uses), or
- identify specific actions for implementation (for example, upgrade the Hutt River Trail to an all-weather surface).

We have included the reasons for these guidelines so that they can be applied in context. These guidelines have been split into the following subjects to reflect the guiding principles:

- Ecosystems and ecological processes
- Maori : History and Cultural Values
- Contemporary History
- Landscape and Visual Quality
- Recreation
- Tangata Whenua and Community

Throughout the Environmental Strategy references are made to the west and east banks of the river. While in most cases this is correct, there are some places where the river runs east/west so the banks are more accurately north and south banks. For consistency, we refer to east and west banks throughout. The west bank is the right-hand bank if you are facing downstream, and is the bank closest to the western hills.

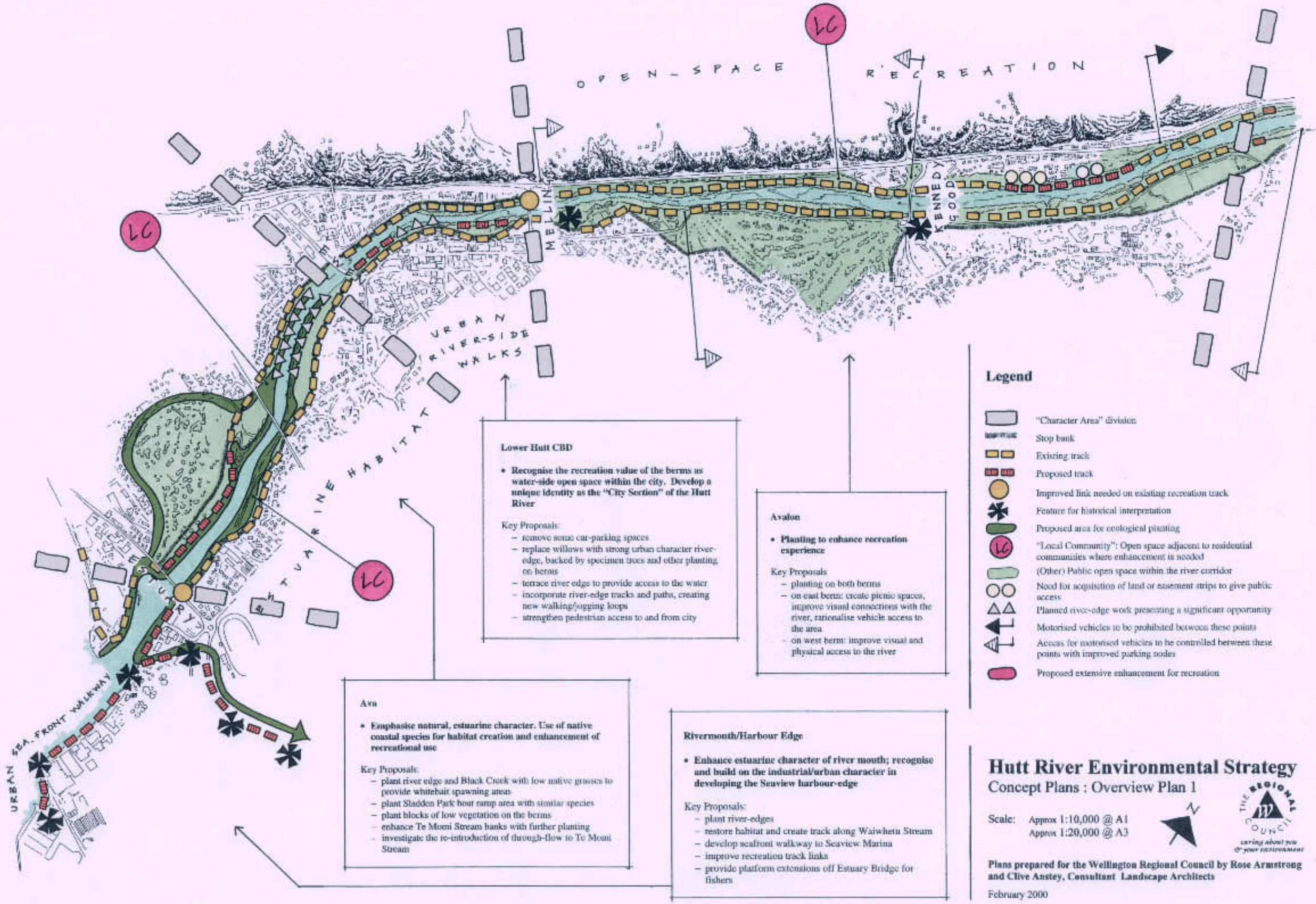
The following series of four plans show the Hutt River from Wellington Harbour to Kaitoke Regional Park. They define each character area or "reach" of the River and include a summary of the focus for each area. They also show the key proposals for each area.

Features and guidelines that affect or are common to the river as a whole are also shown on these overview plans. These include existing and proposed access tracks, features of historic interest, open space and recreational facilities, and vehicle access.

Did you know that…

"There is evidence to be seen today that the whole of the valley had been covered with forest from times immemorial. Fossilised stumps are to be seen in the banks of the river just north of the Melling Bridge…. the fossil forest is composed of stumps of matai and pukatea, leaves of puka (*Griselinia lucida*) seeds of miro, matai, rimu and carex species."

(Stevens, G.R. 1956 *The Hutt River: N.Z. Journal of Science and Technology)*



Lower Hutt CBD

- **Recognise the recreation value of the berms as water-side open space within the city. Develop a unique identity as the "City Section" of the Hutt River**

Key Proposals:
- remove some car-parking spaces
- replace willows with strong urban character river-edge, backed by specimen trees and other planting on berms
- terrace river edge to provide access to the water
- incorporate river-edge tracks and paths, creating new walking/jogging loops
- strengthen pedestrian access to and from city

Avalon

- **Planting to enhance recreation experience**

Key Proposals
- planting on both berms
- on east berm: create picnic spaces, improve visual connections with the river, rationalise vehicle access to the area
- on west berm: improve visual and physical access to the river

Ava

- **Emphasise natural, estuarine character. Use of native coastal species for habitat creation and enhancement of recreational use**

Key Proposals:
- plant river edge and Black Creek with low native grasses to provide whitebait spawning areas
- plant Sladden Park boat ramp area with similar species
- plant blocks of low vegetation on the berms
- enhance Te Momi Stream banks with further planting
- investigate the re-introduction of through-flow to Te Momi Stream

Rivermouth/Harbour Edge

- **Enhance estuarine character of river mouth; recognise and build on the industrial/urban character in developing the Seaview harbour-edge**

Key Proposals:
- plant river-edges
- restore habitat and create track along Waiwhetu Stream
- develop seafront walkway to Seaview Marina
- improve recreation track links
- provide platform extensions off Estuary Bridge for fishers

Legend

- "Character Area" division
- Stop bank
- Existing track
- Proposed track
- Improved link needed on existing recreation track
- Feature for historical interpretation
- Proposed area for ecological planting
- "Local Community": Open space adjacent to residential communities where enhancement is needed
- (Other) Public open space within the river corridor
- Need for acquisition of land or easement strips to give public access
- Planned river-edge work presenting a significant opportunity
- Motorised vehicles to be prohibited between these points
- Access for motorised vehicles to be controlled between these points with improved parking nodes
- Proposed extensive enhancement for recreation

Hutt River Environmental Strategy

Concept Plans : Overview Plan 1

Scale: Approx 1:10,000 @ A1
Approx 1:20,000 @ A3

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Plans prepared for the Wellington Regional Council by Rose Armstrong and Clive Anstey, Consultant Landscape Architects

February 2000

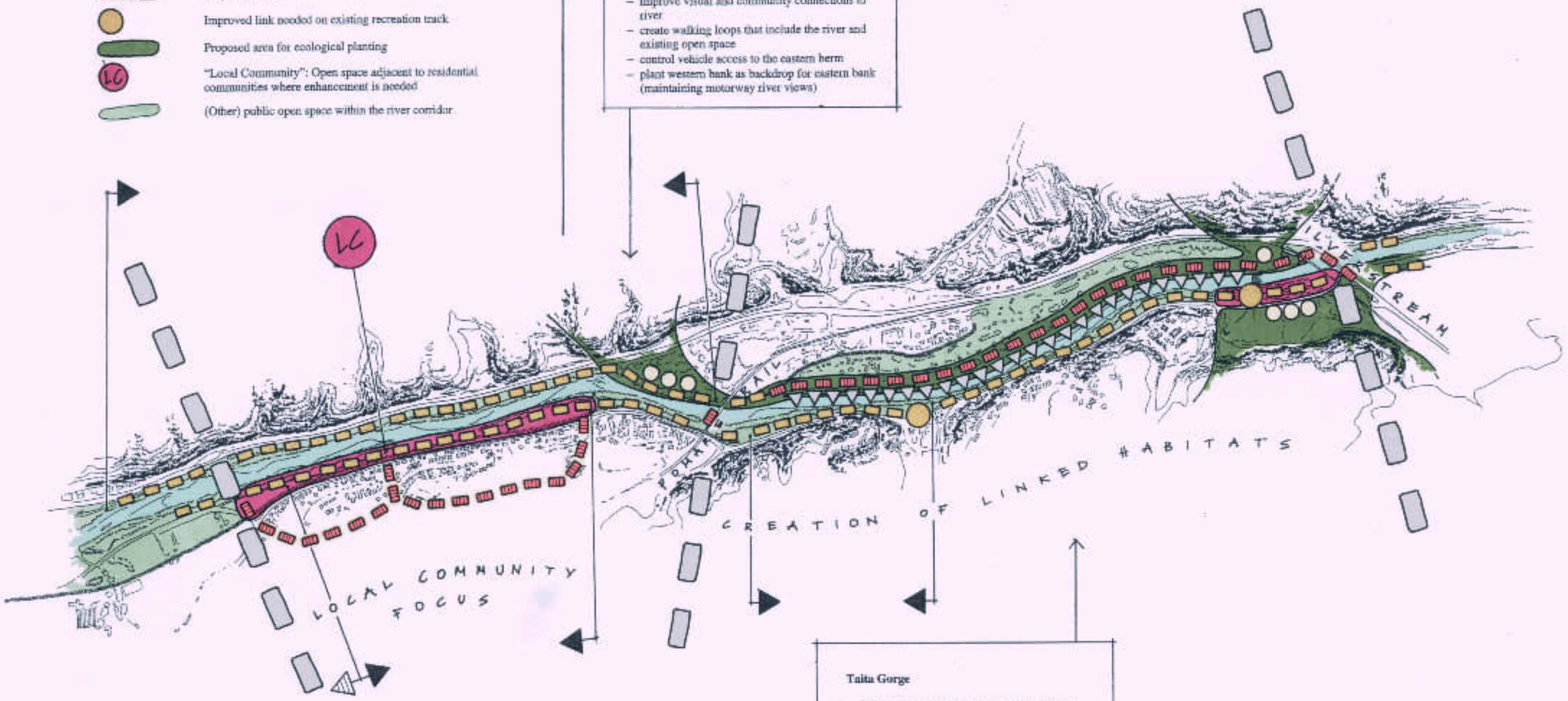
Legend

- "Character Area" division
- Stop-bank
- Existing track
- Proposed track
- Improved link needed on existing recreation track
- Proposed area for ecological planting
- "Local Community": Open space adjacent to residential communities where enhancement is needed
- (Other) public open space within the river corridor

Taita

- **Enhance eastern berm as an important local community recreation space**

Key Proposals:
- plant eastern berm for more variety and better picnic spaces
- improve visual and community connections to river
- create walking loops that include the river and existing open space
- control vehicle access to the eastern berm
- plant western bank as backdrop for eastern bank (maintaining motorway river views)



- Need for acquisition of land or easement strips to give public access
- Planned river-edge work presenting a significant opportunity
- Motorised vehicles to be prohibited between these points
- Access for motorised vehicles to be controlled between these points
- Proposed extensive enhancement for recreation

Taita Gorge

- **Enhance existing recreation spaces; long-term habitat restoration**

Key Proposals:
- enhance picnic spaces
- improve recreation links to the south – proposed footbridge across Hulls Creek
- screen recreation trail from the road with plants
- recognise long-term large scale habitat restoration and enhanced recreation potential; create ecological corridors to adjacent hills and north; recognise possible long-term need to acquire land

Hutt River Environmental Strategy

Concept Plans : Overview Plan 2

Scale: Approx 1:10,000 @ A1
Approx 1:20,000 @ A3

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Heretaunga

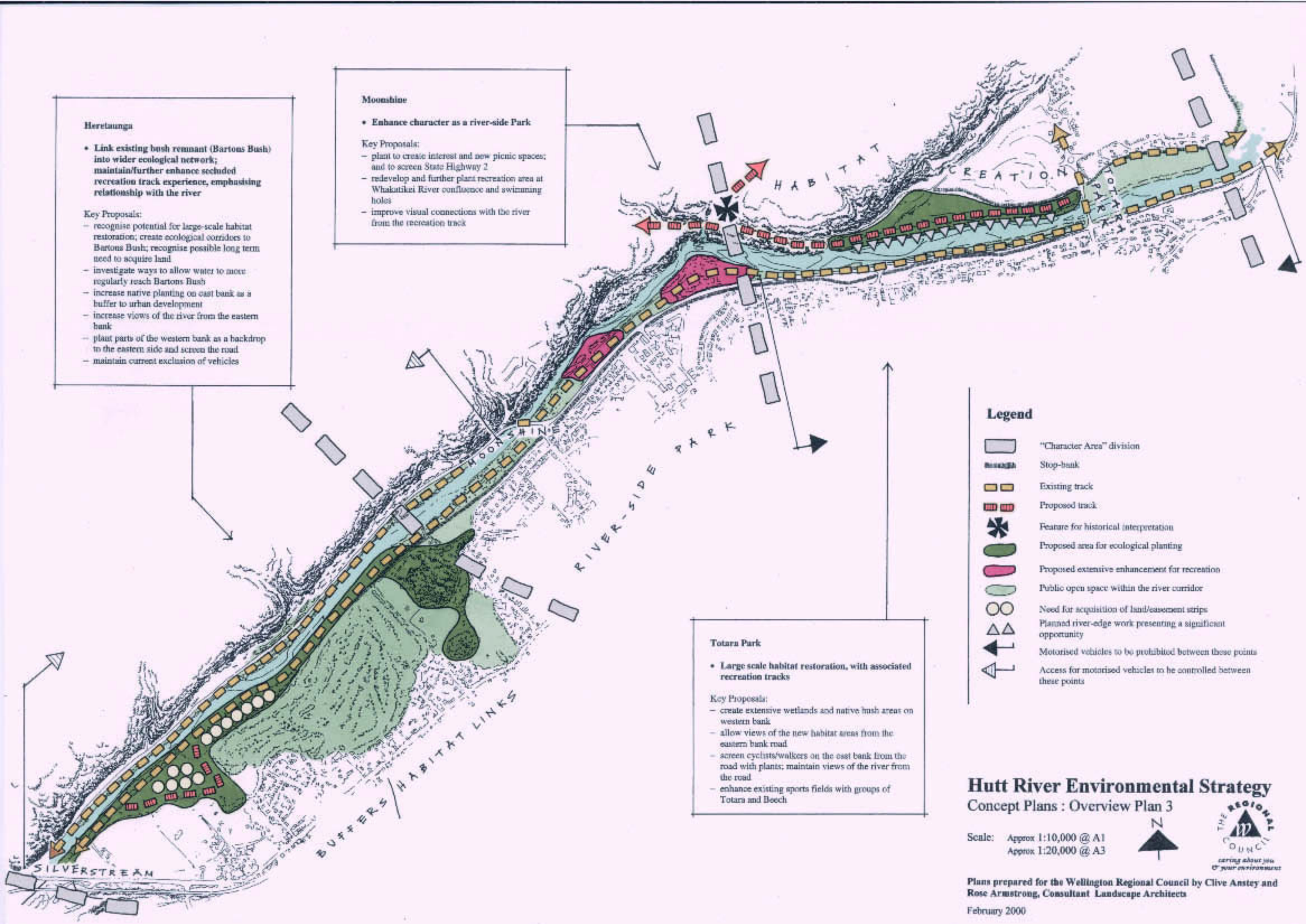
- **Link existing bush remnant (Bartons Bush) into wider ecological network; maintain/further enhance secluded recreation track experience, emphasising relationship with the river**

Key Proposals:
- recognise potential for large-scale habitat restoration; create ecological corridors to Bartons Bush; recognise possible long term need to acquire land
- investigate ways to allow water to more regularly reach Bartons Bush
- increase native planting on east bank as a buffer to urban development
- increase views of the river from the eastern bank
- plant parts of the western bank as a backdrop to the eastern side and screen the road
- maintain current exclusion of vehicles

Moonshine

- **Enhance character as a river-side Park**

Key Proposals:
- plant to create interest and new picnic spaces; and to screen State Highway 2
- redevelop and further plant recreation area at Whakatikei River confluence and swimming holes
- improve visual connections with the river from the recreation track



Totara Park

- **Large scale habitat restoration, with associated recreation tracks**

Key Proposals:
- create extensive wetlands and native bush areas on western bank
- allow views of the new habitat areas from the eastern bank road
- screen cyclists/walkers on the east bank from the road with plants; maintain views of the river from the road
- enhance existing sports fields with groups of Totara and Beech

Legend

- "Character Area" division
- Stop-bank
- Existing track
- Proposed track
- Feature for historical interpretation
- Proposed area for ecological planting
- Proposed extensive enhancement for recreation
- Public open space within the river corridor
- Need for acquisition of land/easement strips
- Planned river-edge work presenting a significant opportunity
- Motorised vehicles to be prohibited between these points
- Access for motorised vehicles to be controlled between these points

Hutt River Environmental Strategy

Concept Plans : Overview Plan 3

Scale: Approx 1:10,000 @ A1
Approx 1:20,000 @ A3

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Birchville

- **Protect/enhance existing river access points and existing "natural", secluded character of river; gain river-side public access through the area**

Key Proposals:
- define and enhance existing river access points and easement strips by clearing/planting
- plant beech to build on existing remnants and recognise the origins of the area's name
- gain river-side public access through the area using existing roads/tracks and river-side easement strips, linking the area from the south through to Kaitoke Regional Park

Te Marua

- **Gain river-side public access through the area and preserve a "natural" backdrop to the river in the event of subdivision of surrounding private land**

Key Proposals
- acquire river-edge easement strip and reserve lands on western side of the river
- create a recreation trail and ecological corridor along western bank, linking to Kaitoke Regional Park

Maoribank

- **Strengthen recreation emphasis; improve community connections to the river**

Key Proposals:
- replace former swing-bridge on the river-corner, creating a loop walk from Harcourt Park
- enhance Maoribank corner and swimming hole as a focal-point for the new loop track
- plant Totara and Beech to strengthen local identity
- create a community park adjacent to the Totara Park residential area

Kaitoke Regional Park

- **Reinforce the natural, indigenous character and establish recreation links south**

Key Proposals:
- plant native species only
- establish recreation trail links south: create a new cycle way along State Highway 2; create a new track on the west bank using the historic logging route. Link the historic logging route across the river into Kaitoke Regional Park with a swing bridge

ESTABLISH LINKS

RIVER-EDGE ACCESS / HABITAT CORRIDOR

WILDERNESS EXPERIENCE

RECREATION LOOP

LC

Legend

- "Character Area" division
- Stop-bank
- Existing track
- Proposed track
- Feature for historical interpretation
- Proposed area for ecological planting
- "Local Community": Open space adjacent to residential communities where enhancement is needed
- (Other) Public open space within the river corridor
- Need for acquisition of land or easement strips to give public access
- Access for motorised vehicles to be prohibited between these points
- Proposed extensive enhancement for recreation
- Proposed new bridge over river

Hutt River Environmental Strategy

Concept Plans : Overview Plan 4

Scale: Approx 1:10,000 @ A1
Approx 1:20,000 @ A3

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Plans prepared for the Wellington Regional Council by Clive Anstey and Rose Armstrong, Consultant Landscape Architects

February 2000

4.1 Ecosystems and Ecological Processes

The Hutt River, its bed and banks, and the surrounding floodplain, form a series of separate but interrelated ecosystems, each with its own natural processes. These processes include physical ones, such as rain and floods, and biological ones, such as plant and animal reproduction, migration and colonisation. Human activities within these ecosystems affect each process differently. Human development of the floodplain has fundamentally changed the area's ecology, particularly during the 20th Century. Often development went ahead without any thought as to the effects on indigenous ecological values and processes.

4.1.1 Native Vegetation

Prior to European settlement a mosaic of wetlands, forest and dunes covered the Hutt floodplain. The following description of the Hutt Valley as it appeared to the crew of the *Tory* on 20 September 1839 gives an idea of how it used to be:

"From the foreshore of Pito-one lay a space of about one and a half miles in depth of sandy hillocks and swampy land. Then came a great forest of trees. Some of the trees reached to over seventy feet to their first branches and they consisted of rimu, pukatea, matai, tall tree ferns and a multitude of other trees and shrubs. The forest seemed to sink back into the distant converging hills. From the Tory looking up the valley was seen a glittering silver river. It twisted and turned from one side of the valley to the other and could be seen only when the trees bent before the northerly wind… The alluvial soil on the banks of the Hutt was at this time covered by a dense forest, many of the trees being of gigantic size. Boats would ascend the river to the locality of the present bridge, and the sight of the foliage on the banks at this point, with the white clematis hanging in graceful folds from the lofty branches was superb."[1]

Now the vegetation of the Hutt catchment is a mixture of native forest in the upper reaches, farmland, scrub and regenerating forest, and exotic species.

- The upper catchment of the Hutt, north of the Akatarawa confluence, is still covered by an extensive mosaic of native forest types, including beech, podocarp species such as rimu and matai, and broad-leaved species including rata, mahoe, and tawa. The species present in this area is dependent on soil type, aspect, slope, climate, logging history, pests, stability and altitude. Downstream of Kaitoke farmland surrounds the river, with scrubland (mostly native) possibly reverting to native forest on the surrounding hills. There are also patches of commercial forestry, mostly *Pinus radiata*.

- A mosaic of exotic weeds and native scrub, resulting from earlier clearance dominates the eastern and western hills of the lower catchment. Small areas, representative of original vegetation, can still be seen along the lower hills. A good example of this is at the Keith George Memorial Park where there is a transition from mixed podocarp/ broad-leaved forest on the west-side to beech forest on the eastern hills with a mosaic of these species occurring in the upper valley. Percy's Reserve also contains remnant vegetation, although it has been heavily modified.

[1] Treadwell, C.A.L. 1959 *The Hutt River: Its History And Its Conquest*

- The floodplain outside of the stopbanks has very few native remnants, and what does exist is generally less than three hectares in size. The floodplain vegetation is dominated by garden and park species including large expanses of lawn and flowerbeds. Trees are found in gardens, parks, alongside roads and the species range from old pines, pohutukawa, and macrocarpa to newer plantings of natives grown locally. There are areas of wasteland, with tough weeds and bushes, and pasture (for example, Silverstream). There are sand dunes with native pingao (Hikoikoi), raupo, flax, sedges and rushes (Te Momi) and remnants of swamp forest at Trentham. There are a few small wetland areas with associated flax and sedges (for example, Te Haukaretu Park), some riverside trees at Birchville, and remnant forest trees in gardens and at Harcourt and Poet's Parks.

Natural ecological processes have been disrupted by forest clearance, wetland drainage and channel confinement. These changes in the biophysical environment mean that many of the ecological processes no longer occur in the same way as the past.

For example, when the Hutt River was unmanaged, the river and floodplain ecosystems would have been dynamic as floods destroyed or disturbed them from time to time. Disturbance is a natural process that native plants and animals have adapted to.

Now, because of the fundamental changes to the river and its surrounding environment, past natural processes, such as native plant and animal re-colonisation of an area following a major flood no longer occurs in the same way. There may not be suitable seed sources, and there are fewer native birds to distribute the seed of larger native trees and shrubs. Dispersal of native seed may have to rely on introduced bird species and disturbed areas may become rapidly colonised with weed species.

The floodplain ecology has been irrevocably altered to the extent that restoration to a "natural" environment is now impossible. Despite this, there are opportunities to restore some of the natural components. This also means that the preservation and enhancement of the few remnants of the natural ecosystems is of paramount importance.

Did you know that…

During spring and early summer shoals of inanga (the young of several species of native galaxiads, or whitebait) feed in the river downstream of Ewen Bridge, and by autumn (February – May) they are sexually mature. When the moon is either new or full, the inanga migrate downstream into the estuary to spawn. The spawning grounds are on the banks that are covered at high tide during the highest spring tides. These areas are then left uncovered by the tide for two weeks until the next spring tide.

Spawning grounds need to be accessible to the fish and require suitable plant cover to protect the spawn. The females lay their eggs around the base of grass and sedge stems, where the males then fertilise the eggs. The eggs are washed into the base of the plants and remain there out of the water. The eggs are protected from drying out by the humidity created by the plants, until the next spring tide a fortnight later. The eggs hatch and the young are then washed out to sea.

Spawning grounds are usually located near the upstream limit of the saltwater edge, although inanga may also spawn in freshwater area upstream of the saltwater wedge. It is critical that riverbanks in the reaches covered by spring tides are gently sloping (to maximise the available spawning area) and are vegetated with grasses and sedges. Species that would have provided habitat for whitebait to spawn include Soft Turfy Sedges (*Isolepis sp.*) Spike Sedge (*Eleocharis sphacelata*), Salt Marsh Herbs (*Leptinella sp.),* Panakenake (*Pratia angulata*) Pennyworts (*Hydrocotyle sp.*), Buttercups (*Ranunculus sp.*) and mosses.

4.1.2 Water Quality

The Resource Investigations Department of WRC measures water quality and quantity, and produces an annual State of the Environment report. Mean data for the Hutt River and some of its tributaries show that in the upper reaches the water quality is good, with signs of mild to moderate pollution downstream from Silverstream. The water quality of the Waiwhetu Stream is of concern, with the presence of contaminated sediments in the lower reaches from past industrial discharges.

There are numerous discharges which reduce the water quality of the Hutt River, including industrial discharges, stormwater, untreated sewage discharges during storm events, and farm run-off. As well as the Hutt River, the groundwater of the Hutt Aquifers is an important resource for water supply purposes. Numerous industries as well as the public supply rely on the aquifers for water.

4.1.3 Wildlife

The Hutt River provides an important habitat for a variety of fish species (including numerous native species) and a diverse community of invertebrates. The majority of native species of fish will only be present in the Hutt during migration or feeding, although some species, such as short-finned eel (*Anguilla australis*), long-finned eel (*A. dieffenbachii*), common bully (*Gobiomorphus cotidianus*) and inanga *(Galaxias maculatus*) are likely to be resident[2].

The river is also an important trout and whitebait habitat. Appropriate water quality and habitat for spawning, migration and feeding is required for these species. The physical components of fish habitat are pools, riffles, substrate that provides cover, vegetation, woody debris, undercut banks, water temperature and flow[3]. Often the habitat requirements of particular fish species vary with age. For example, juvenile long-finned eel live in fast flowing channels but large eels prefer deep slow-flowing channels with cover. Different fish species also have different habitat requirements, for instance, whitebait require suitable streamside vegetation to spawn, whereas trout require river gravels for their redds (spawning areas).

The lower reaches of the river provide valuable bird habitat. Black shag (*Phalacrocorax carbo*), red-billed gull (*Larus scopulinus*) and little shag (*Phalacrocorax leucos brevirostris*) regularly use the estuarine reaches. Small birds such as starling, finches and sparrow use the river as a corridor for moving between roosting and feeding areas. The use of the river and bed by native species such as little and black shags may be limited by lack of suitable roosting areas in, or beside, the river.

The upper catchment is an important source for species to re-colonise the lower reaches after floods. It is important that these populations remain in good condition enabling viable populations to survive in the lower and upper reaches of the Hutt River in the future.

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2 WRC (1998) *Resource consent application for operations and maintenance activities on the Hutt River*

3 Charles Mitchell and Associates (1997) *Effect of River Control Works on Aquatic and Riparian Ecology in the Upper Ruamahanga River*

4.1.4 What we want to do

We want to protect and enhance the ecological values of the river and its margins.

4.1.5 What we need to do

- ***Take into account and provide for the ecological processes when managing natural resources within the Linear Park.***

We need to recognise that we live within ecosystems and that when we manage natural resources our actions will have consequences on the river and riparian processes of those ecosystems. This is true whether it be putting in rock riprap for protecting the river banks, improving and extending access tracks, planting trees or taking water for domestic and industrial use.

WRC has a policy commitment to supporting and managing ecological processes, as well as physical processes, such as flooding. We need to consider the potential effects on ecosystems when we plan any work within the Linear Park. Where there is potential for significant adverse effects, we should look at alternatives. Any potential adverse effects must be avoided, remedied or mitigated.

It is critical that the staff responsible for managing natural and physical resources are aware that they are managing processes (for example, what happens) as well as things (for example, rock rip-rap and stopbanks).

- ***Prepare an Ecological Management Strategy for the Hutt River Catchment***

Following on from the need to take ecological processes into account when we are managing natural resources within the Linear Park, we need to look at the management and development of the Hutt River catchment as a whole. We also need to recognise that flood protection is just one requirement of how we manage the river.

An ecological strategy that takes an integrated approach to the protection and enhancement of the whole catchment is needed. We need to recognise the ecosystem processes occurring within the catchment, the diversity of the natural river environment, the needs and aspirations of the community and determine what is necessary to nurture and enhance these.

- ***Plant native species wherever possible to increase the diversity of vegetation within the Linear Park. Native plant material should be eco-sourced from the Heretaunga Ecological District.***

The species listed in Section **13** are based on those that are thought to have existed in the Hutt Valley. They are adapted to local conditions and are therefore more likely to survive. Some species are historically important, and place names reflect this, for example, rimu at Rimutaka, beeches at Birchville and totara at Totara Park. Species traditionally harvested and used by Maori are also included. Exotic species that could be used are either of amenity value or are a valuable food source for birds.

The Regional Policy Statement states we will "encourage the planting of native vegetation, and particularly, regionally appropriate species" (Policy 10, p.163). The Wellington Regional Native Plant Guide[4] is an aid to implementing this policy and contains lists of plants that would be appropriate in the Hutt Valley.

[4] Wellington Regional Council, *Wellington Regional Native Plant Guide*, 1999

UHCC and HCC have no set policies regarding the amount of native plant species planted within their reserve areas. As general rule the most appropriate plant species are selected for an area. Predominantly native species are used in bush regeneration areas and a mixture of exotic and natives used for ornamental gardens. Many native trees are unsuitable for street trees although kowhai are frequently used.

Native species should be used when they are needed to support the ecological process we are endeavouring to nurture. In the reaches where habitat restoration is the dominant theme, then native species will be the only suitable candidates for planting along the river margins. Diversity in species along the river edge (the riparian zone) is essential for promoting diversity in habitat, both instream and terrestrial.

There are plenty of opportunities for planting native species within the Linear Park that will increase the species diversity and provide a wider range of habitat for native fauna.

- ***Trial use of salt-tolerant species in estuarine reaches for bank edge planting.***

The bank edges along the lower reaches of the Hutt and its tributaries below Ewen Bridge once provided habitat for whitebait to spawn. As the rock and hard edge protection has been constructed over the years, this habitat has almost been entirely lost. Only a few small remnants remain. Because of the salty water in the estuarine reach of the river, the willows normally planted on the banks do not survive well.

Species that are salt-tolerant (such as sedges, reeds and grasses) should be trialled. These will also provide suitable habitat for whitebait spawning. In particular the bank edges below mean high water spring tides should be planted with grasses and sedges and left unmown. Species that might be suitable include glasswort (*Salicornia australis*) and remuremu (*Selliera radicans*) at the water's edge with batchelors button (*Cotula coronopirfolia*) further back.

Sea rush (*Juncus maritimus*), jointed rush (*Leptocarpus similis*), sedges (*Scirpus nodosus and Cyperus ustulatus*), raupo (*Typha orientalis*), flax (*Phormium tenax*), and salt-marsh ribbonwood (*Plagianthus divaricatus*) could also be used. There are opportunities to use these species as part of any bank protection works downstream of Ewen Bridge.

Research into and trialling of restoration of whitebait habitat is identified in the WRC Long-term Financial Strategy.

- ***Allow natural regeneration of native plants at appropriate locations.***

There are good examples at several sites along the Hutt River where native species have started to establish underneath willows. In places where native species have the potential to become well established, willows should not be cut or replanted.

- ***Link existing remnants and enhance ecological corridors.***

The few remaining remnants of native habitat within the Hutt River floodplain are isolated. This isolation limits the value of the remnants as birds, animals and plants can't spread easily from one remnant to another. Ecologists today are now convinced that small unbuffered reserves are unsatisfactory for the long-term survival of many plant and animal species. If existing remnants can be linked, then species can move between them, ensuring their viability.

There are some continuous areas of mature forest on the western Hutt Valley foothills that form important ecological corridors. These provide links down the valley but there are no links across the valley to the eastern hills.

This Environmental Strategy takes a holistic approach. We have identified those areas where ecological restoration is feasible within the overall floodplain. Because of the significantly altered urban

nature of the floodplain, there are very limited opportunities for large-scale ecological restoration.

There are, however, a few places where remnants can be linked within the area covered by this Environmental Strategy. There are opportunities to link the native bush on the western hills to the river in the reach between Totara Park and the Whakatikei confluence. Native remnants in Trentham Memorial Park could be linked to both the western and eastern hills along the river and margins at Silverstream. These areas are described in more detail in sections **5.9** and **5.6**.

The Hutt River provides an ecological corridor down the valley, linking the native bush in the upper catchment with the harbour. The value of this corridor is immense, and any planting should reflect the importance of the river in this role.

- ***Minimise the use and impacts of willows along the river margins.***

Continuous willow planting increases the homogeneity of the river bank habitat, reducing diversity. Current Flood Protection Group practice is to allocate up to 90% of the tree planting operation budget on willows. This will be reviewed with the intention of decreasing this percentage. The current approach reflects flood protection as the principal river management objective within the river corridor by WRC. As a result, willows have been used almost exclusively for bank edge erosion control, with environmental enhancement of the river corridor a secondary goal. Section **13.4** outlines the reasons why WRC considers natives cannot replace willows for flood protection purposes. In accepting this, there are ways in which the impacts of willows can be minimised and these are given in section **13.5**.

The Flood Protection Group will investigate and trial the use of eco-sourced natives as alternatives to willows for flood protection purposes in saline reaches, and will actively manage the willows to benefit native species, with a long-term goal of phasing out the use of willows. Policy will be further developed to use native species if possible, with willows being used only where absolutely necessary.

The Flood Protection Group will also review its current bank protection approach, as this relies upon the use of willows. If willow use is to be phased out within the Hutt River environment, a different management approach will also be needed.

- ***Plant wet ground, backwaters and tributaries first.***

Wetlands are one of the major habitats that have been lost from the Hutt Valley and the Wellington Region generally. They form an essential link in the ecosystem. Wet areas are often those where sports fields and other landuses are difficult to maintain because of waterlogging. Conversion of these areas to planting adapted to wet conditions makes sense. Tributaries and backwaters are also important, and riparian planting of these areas is crucial to their value as habitats.

- ***Control pest and weed species and fence remnants wherever possible.***

Protection of the few remaining remnants of native habitat on the floodplain is essential and a priority. This involves removing or excluding unwanted species or damaging conditions for example, controlling possums, eliminating old man's beard and fencing to exclude stock.

Management of areas valuable for birds should take into account pests such as cats and stoats. Pest management and weed control is the responsibility of the Biosecurity Department of the WRC and landowners. As landowners, WRC, UHCC and HCC should show leadership and investigate ways of co-ordinating pest management and weed control within the Linear Park in line with the Regional Pest Management Strategy.

- ***Leave flood debris in the channel wherever possible.***

Birds need a variety of habitats for nesting, breeding and feeding. Flood debris often provides ideal safe roosts for birds. Flood debris also provides valuable habitat for fish and invertebrates. However, flood debris can cause a hazard to water-based recreationalists such as kayakers, and can also cause blockages during floods. For these reasons flood debris is cleared regularly. Flood debris should be left within the channel if it will not result in a blockage during floods and if there is no threat to the safety of recreationalists.

- ***Incorporate ledges onto bridges for nesting birds.***

Ledges, incorporated onto bridges also provide additional roosting and nesting sites for birds.

- ***Remove or provide bypasses for structures that restrict fish passage.***

Native fish that live in the Hutt River and its tributaries migrate between the upper catchment and the sea. Structures such as weirs and culverts can block the migration of these fish by restricting fish passage. Provision can be made to allow fish to pass structures. For instance, providing pools for fish to rest and shelter in before any obstacles in their path, by laying culverts at bed level rather than having a drop, and by providing bypasses or fish ladders for larger structures.

- ***Construct eddies, backwaters and pools where appropriate in conjunction with river control works.***

The physical components of fish habitats are often removed or restricted by flood protection works, particularly activities that involve working in the riverbed, such as cross-blading.

Because fish need a variety of features including pools and riffles, opportunities should be taken to physically construct these features when undertaking instream works.

- ***Plant riparian margins wherever possible to help improve water quality.***

Water quality is generally good in the Hutt River, although it does deteriorate downstream. The Regional Policy Statement and the Regional Freshwater Plan address the issue of water quality. These documents identify which watercourses require improvement. This is the responsibility of the Environment Division of the Regional Council.

The good water quality in the upper catchment of the Hutt and around the region generally reflects landuse, with the best water quality being in the forest parks. Vegetation acts as a buffer to run-off, filtering sediment and pollutants. Planting the edges of watercourses may improve water quality. The Environment Division is currently investigating specific projects to improve water quality in the Waiwhetu Stream.

- ***Control land uses in the Upper Catchment to avoid deterioration in water quality.***

Large areas of the Hutt catchment are classed as having moderate-severe erosion potential, and this has significant implications for both water quality and flood levels. To ensure that water quality in the upper reaches of the Hutt does not deteriorate further, protection of the forested areas of the upper catchment is critical. This is addressed by the Upper Hutt District Plan and by the Regional Soil Plan. The Hutt River Floodplain Management Plan will address landuse controls in relation to flood levels.

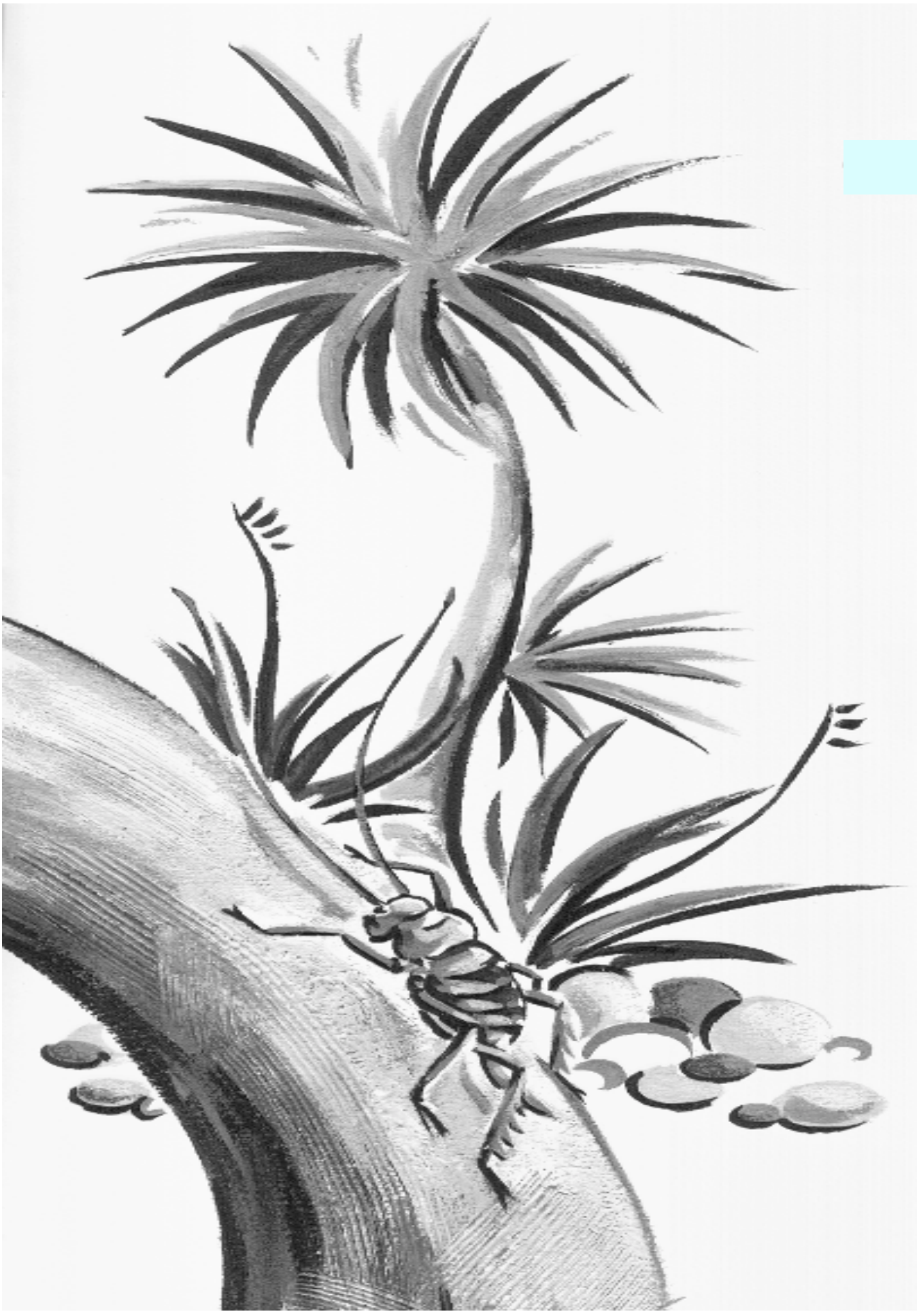
- ***Seek the co-operation of other agencies such as Transit NZ and Tranz Rail in managing the ecosystems of the Hutt River and its margins.***

WRC, UHCC and HCC will investigate the benefits of developing a working agreement or protocol with other agencies with landownership responsibilities to determine how the ecosystems within the Linear Park can be best managed.

Did you know that…

Charles Heaphy noted… "enormous number of waterfowl frequenting the mouth of the Hutt River. Cormorants, ducks, teal, oyster catchers, plovers, sandpipers, curlew and red legged waders … the forest was teeming with birds …tui, flycatcher, wren, sand-lark, robin, bellbird, titmouse, thrush, popokatea, tiraweke, rironiro, kokako, rail, pukeko, kaka, huia, bittern, weka…" By 1879 Heaphy noted that most of these had gone.

(WRC 1993 *HRFMP Phase 1 Environmental Investigations: Ecological component*)



"In Maori tradition, all elements of the natural world are related through whakapapa (genealogy). The Maori world was created through the union of Ranginui (the sky father) and Papatuanuku (the earth mother). In the beginning, these "primal" parents lay clasped together, and bore many sons. The first son, Tane, grew tired of living in the dark cramped space between his parents. With his feet placed against Rangi and his hands placed against Papa, he forced them apart, creating the space between earth and sky. He and his brothers, including Tangaroa, Tawhirimatea, Tumatauenga, Haumia and Rongo then escaped into Te Ao Marama (the world of light).

Following the separation of their parents, the brothers began to fight for dominance. Tangaroa became the god of the sea. Tawhirimatea decided to remain with his parents and punished his brothers by creating the wind. Tumatauenga became the god of war and Haumia and Rongo became the gods of wild and cultivated foods.

Tane set about creating his own dominion in the form of trees, birds, insects and other living things. He then sought to create human life, and succeeded by combining elements of both Rangi and Papa. He fashioned a female figure from earth, and breathed life – mauri – into her nostrils.

This view of creation embodies both the spiritual and physical elements of the created world: the earth representing those beings that are transitory, and the sky the realm of the undying.

Traditional Maori attitudes to the natural world reflect the relationships created through Rangi and Papa: all living things are their descendants and are thus related. Further, the sense of inter-relatedness between people and nature creates a sense of belonging to nature, rather than being ascendant to it as humans are born from "mother earth" and return to her on their death. In the traditional Maori view, everything in the natural world possesses mauri (the physical life force) which is protected by a Kaitiaki (spiritual guardian) or atua (deity). Humans possess mauri-ora, which is of a higher order than mauri but confers of humans a certain responsibility towards other living things. Preservation of the mauri of any element of the natural world is essential for its survival.

In Maori tradition, human action with respect to natural resources is regulated through the concepts of tapu and rahui. The modern translation of tapu as "sacred" fails to capture the full essence of tapu. Tapu implies a prohibition, which if violated, would have calamitous consequences, quite possibly death. Rahui is a temporary form of prohibition used to preserve birds, fish or any natural product. In many instances the rahui is indicated by a pou rahui, or post, which warns people against trespassing into the area of the rahui. A person's tapu can increase when he or she dies. Rahui is used therefore when a person is drowned in a river. Even if their body is recovered immediately, gathering of fish is prohibited for a period sufficient for the remains of the person to be absent from the food chain. The system recognises the need to balance human need with the survival of a species or resource (the protection of its mauri).

The authority, or mana, to exercise these rules is delegated by the atua to chosen representatives through whakapapa (for example, to members of senior families). These representatives are rangatira (chiefs). Mana is reinforced by the people, providing the rangatira can fulfil their responsibilities. Rangatiratanga is the process of exercising mana."

(Natural Resources Unit of Manatu Maori, *Maori Values and Environmental Management*, 1991).

4.2 Maori : History and Cultural Values

The Hutt River was and is a major geographic landmark and reference point for Maori. As such, it is considered a taonga of the tangata whenua. It is an important symbol associated with tupuna (ancestors), food and sustenance. The banks are places where Maori once had settlements, gardens and burial grounds. The river is tapu because of its association with these features and qualities. There are a number of places that have special significance to tangata whenua, including existing maraes, urupa and sites of old settlements. Te Ati Awa hold manawhenua over the river and harbour and maintain their right to take resources from it. They retain a tradition of fishing from both banks and the river mouth. Te Ati Awa have made the following suggestions with regard to the future management of the Hutt River:

- The discharge of toxic and industrial waste into the river needs to be legislated against in order for flora and fauna to regenerate and be conserved. Specifically this would lead to the reestablishment of a watercress base.

- Swamps should be re-established alongside the river to provide for resources such as paru and flax.

- Where possible native bush should be propagated alongside the river.

4.2.1 Maori History of the Hutt River

Known today as the Hutt River or Heretaunga, it was formerly known as Te Awa Kai Rangi "the river of greatest value or the highly esteemed river" dating from around 1200AD when Ngai Tara settled the area. The river was navigable for canoes and so provided access to important food supplies, including eels, which were taken from the river to the lagoon at Motu Kairangi (Miramar). The river was also known as Te Wai-o-Rotu, a name attributed to Ngati Mamoe who lived in the Wellington area for a time. It is said that the name was changed from Te Awa Kairangi to Heretaunga by Ranginui who was from Heretaunga (Hawkes Bay) when he arrived in the area in memory of where he had come from.

Towards the end of the eighteenth century several related tribes, Rangitane, Ngati Ira, Ngai Tahu and later Ngati Kahungunu inhabited the Wellington area, including the Hutt Valley. Heavy forestation meant that the banks of the river were not likely to have been settled, but there is evidence of pre-historic gardening along the river banks. From around 1500AD Ngati Ira settled at Waiwhetu, near the mouth on the eastern side. Around 1820 Nga Puhi, Ngati Whatua followed by Ngati Toa, under the chief Te Rauparaha, raided from the west coast.

An account by one of the party states…

"We … marched around the western side of the harbour as far as the mouth of the river, where we made rafts, and fifty of our men crossed over to attack the pa on the eastern side, but they were beaten off… The folk of the pa then deserted the place and retreated to the Wairarapa so we crossed the Wai-o-Rotu on rafts, pursued those people for three days, attacked and defeated them".

Returning to the village the raiding party was attacked by the vanquished, who were again defeated and pursued up the river to another fortified village. This was captured, and the invading party continued up the river to another fortified village. This was also captured, and the invading party continued on up the river in search of another pa, which their prisoners had said was the largest in the district. Just upstream of this pa was the scene of another battle, in which the

invading force used guns, decimating the opposing force.

After this battle prisoners told of another pa up river, said to be a large place with many people. Te Rauparaha, one of the leaders of the raiding party, invited the people of this pa to a feast, but betrayed their trust and killed them. This account suggests that there were at least two large pa sites by the river, and that the river was the scene of significant battles and loss of life. The account names the villages as Te Horopari, Hau Karetu and Pa-whakataka.

By 1825 Te Ati Awa (Ngati Tama and Ngati Mutunga) had established settlements at Hikoikoi and Owhiti on either side of the river. In 1832 a major migration of Te Ati Awa occurred to the areas around the harbour. Some settled in Pito-one and Waiwhetu, others at Ngauranga. Others from the heke settled in the Wairarapa for a relatively short period. Later, a further heke arrived from Taranaki.

"Water is seen as containing life-giving properties. Water in its purest form is known as waiora, and is considered to be the physical and spiritual expression of Rangi's tears as he wept for Papatuanuku. Water of this purity is usually used for ritual purposes. Waimaori has lost its spiritual purity because of contact with humans, and is for normal use. Waimate has completely lost its mauri and is no longer able to sustain life. It is considered to be both spiritually and physically polluted.

Maori methods of waste disposal recognise the spiritual and life sustaining properties of water. As Aila Taylor of the Te Atiawa tribe said "Papatuanuku is recognised as the mother who provides life for all living things through the waters in her womb. From her, life is derived. To her, the waste of life and the body devoid of life is to be returned – the life-giving essence, water, must remain pure and unadulterated in order to provide life for those that follow".

(M Patrick (1987), Water and Soil, Ministry of Works, in p.22 Natural Resources Unit of Manatu Maori, Maori Values and Environmental Management, 1991)

4.2.2 Significance of the Hutt River to Maori

There are a number of places and uses of significance to Maori along the Hutt River, which are discussed in the following three sub-sections.

Waahi Tapu

The literal translation of waahi tapu is "tapu place" or "sacred place". Places can be tapu for different reasons. Usually it is because they are associated with a particular event that occurred at some time in the past.

There does not have to be any visible surface evidence that an event took place, all that is needed is for the event to be known about. In fact, a combination of natural processes and commercial and private development have destroyed many of the sites near the Hutt River. This does not lessen their importance.

Some places, such as urupa, are extremely tapu and tend not to be talked about. Tapu remains even if a place is forgotten about and is rekindled if bones or other evidence of significant activity are discovered. Therefore, rediscovery or threat to waahi tapu from activities such as reclamation, alteration or destruction rekindles the significance of the site to the kaitiaki whose responsibility it is to protect them.

Urupa can be classified as waahi tapu. There are still two urupa used on the floodplain. At the old Pito-one pa site, the cemetery of the Te Puni family and his hapu, on the eastern side of Te Puni Street, contains tombstones sacred to the memory of Honiana Te Puni, paramount chief to Te

Ati Awa. The other is at Owhiti at the mouth of the Waiwhetu Stream. There are other urupa, no longer used, that are known to tangata whenua.

There are undoubtedly other sites. Battle sites can also, by their nature, be considered waahi tapu.

Areas important to Tangata Whenua

In pre-European times the whole of the Hutt River was important economically to the iwi of the Wellington area. There were also a number of specific areas that the people valued for both spiritual and economic reasons. Today these sites have all but disappeared because of flooding and the development of the floodplain.

The river itself is important to local people today because of the associations that it has with the activities of their tupuna (ancestors). There are a number of places that have special significance to tangata whenua today:

Pa Site	Information Known
Hikoikoi pa	A stockaded Ngati Awa village at the mouth of the Hutt river, western side. Puwhakaawe was chief of this pa.
Maori pa	Name unknown, this pa site is located by the Hutt River in Taita, on the landward side of Taita Drive.
Maraenuka pa	A temporary pa built in 1841 and burned down in 1846, on the left bank of the Hutt river at the present site of the Lower Hutt sub-station, off Connelly Street. Te Kaeaea, or Taringa-kuri, was the chief of this pa.
Motutara pa	East side of Hutt river opposite the former Belmont railway station.
Owhiti pa	At the mouth of the Waiwhetu – the urupa at this site is still used.
Pito-one pa	Stockaded pa of Te Ati Awa, situated about Te Puni Street, Pito-one. The chief, Honiana Te Puni lived at Pito-one and was the ariki or paramount chief of the Ati Awa people in occupation of the Wellington Harbour lands at the time of the arrival of the European settlers. Pito-one was a Ngati Ira name and it was these people that founded a pa there, at the western end of the sand beach before the incoming and victorious Te Ati Awa occupied the position. After the arrival of the European settlers, the Maori occupants of Pito-one re-erected their village a little distance inland at a position on the Te Tuara-whati-o-Te Mana stream.
Te Mako	A place at Te Taitai (or Taita) where Wi Tako Ngatata lived. The exact site was near the present Naenae railway station. The Te Ati Awa chief selected the old site, Wiremu Tako Ngatata for the erection of his first house built in European style and he lived there until the 1855 earthquake. The original pataka 'Nukutewhatewha' that Wi Tako Ngatata had built is currently located at the Dowse Museum.
Ngutuihe pa	On the end of a projecting spur of Puke-atua ridge below the existing Wainui-o-Mata road. Believed to have been a Ngati Ira pa – the name describing the beak of the garfish.
Urupa	The cemetery of the Te Puni family, on the eastern side of Te Puni street, Pito-one. It contains tombstones sacred to the memory of Honiana Te Puni and some of his descendants. Te Kaeaea, or Taringa Kuri, the chief of Ngati Tama in the Wellington Region at the time, was buried in this cemetery but his grave is not marked.
Waiwhetu pa	A Te Ati Awa pa on a sandy spit projecting into the estuary by the Waiwhetu River. Occupied at the time Europeans arrived in 1840.
Puhaara-keke-tapu	Battle site on and close to the left bank of the Waiwhetu. Fight took place between allied tribes of Ngai Tahu and Ngati Kahungunu just before 1600AD when Ngai Tahu migrated to the South Island.

Pa Site	Information Known
Paetutu kainga	A Te Ati Awa kainga on west bank near the Pipe Bridge. Originally it was built as a fortified pa site on an island in an area of swamp. Later on it became an open village on firm ground on the right bank nearly opposite Lever Rexona.
Te Ahi-o-Manono kainga	A former village near where British soldiers built Fort Redwood in 1854. It was located where Lower Hutt currently stands, immediately at the rear of the post office.
Hau-karetu	A Te Ati Awa village – exact location unknown. The old kainga was probably located on the high terrace on the east side of the river, although it (or its cultivations) could have been on the low alluvial flats on the west.
Pa Whakataka	A Ngati Ira village – exact location unknown, but situated somewhere near the confluence of the Mangaroa and Heretaunga streams.

Other places of significance:

Site	Information Known
Pareraho Hills	The hills about Belmont on the western side of the Hutt Valley
Te Pokai Mangumangu (boundary mark)	A reference point on the tribal boundary line of Te Ati Awa lands of the Wellington area. On arrival of the Europeans, Te Wharepouri included Te Rimurapa (Sinclair Head), Te Pokai Mangumangu, the Rimutaka Range and Turakirae. Te Wharepouri died at his principal pa at Nga Uranga, but was buried near Pito-one.
Uke Tirotiro (peak)	A peak of the Maungaraki range, located by the trig station called Maori Point. The name indicates a lookout point, meaning “hilltop commanding a wide view”.

(From Adkin G L 1959 The Great Harbour of Tara – Traditional Maori Place Names and Sites of Wellington Harbour and Environs)

Types of Use by Tangata Whenua

Historically the river provided both transport and sustenance to the Maori people. The river would have been a source of a large variety of freshwater fish such as kahawai, piharau, mullet, flounder, eels, whitebait, and koura (freshwater crayfish), and would have provided access to bush birds, watercress and a variety of food plants. Sites along the river would also have provided paru (mud) for dyeing. Clearing of the bush and uplift as a result of the 1855 earthquake has caused the river to silt up and restricted the use of the river for transport. Today, changes caused by colonisation have had a significant impact on the traditional use of natural resources. Silting up of the river and pollution has further severely limited contemporary use. While the river can no longer be used in a traditional manner in many cases, it is regularly used in summer by one or more waka.

4.2.3 Treaty Implications

There are claims before the Waitangi Tribunal that may affect the Hutt River, many of which have been heard as part of the Wellington Tenth's Trust claim (Wai 145). A report is due to be released by the Waitangi Tribunal in the near future. Other claims known of to date are provided in the following table.

Claim Number	Claimant	Summary of Claim
*Wai 52	James Okeroa Broughton and others	Muaupoko Land.
*Wai 105	Ihakara Porutu Puketapu	Waiwhetu Lands.
*Wai 108	Tama-Uia Ruru and others	Muaupoko Lands and Fisheries, Public Works Act, Lake Horowhenua.
*Wai 175	Piri Te Tau and others	Hutt Valley and Cape Palliser Lands.
*Wai 207	Akuhata Wineera and others	Ngati Toa Lands, Through Acts, ordinance, and regulations.
*Wai 366	Rodger Herbert and Wayne Herbert	Hutt Valley Lands.
*Wai 377	David Wayne Churton and another	Kaiwharawhara and Hutt Valley Lands.
*Wai 474	Michelle Marino and others	Kaiwharawhara and Heretaunga Lands.
*Wai 543	Ruth Harris and others	Rangitane ki Manawatu (Te Whanganui-a-Tara).
Wai 623	John Hanita Paki and others	Mua Te Tangata and Muaupoko. Wellington to Horowhenua.
*Wai 660	Ann Reweti	Hutt section 19.
*Wai 734	Toarangatira Pomare	Whanganui-a-Tara (Ngati Mutunga).
*Wai 735	Te Puoho Katene and another	Whanganui-a-Tara (Ngati Tama).

* These are claims that were heard during the Wellington Tenth's Trust hearings.

The outcomes of these claims may well have implications for both this Environmental Strategy and the overall management of the river. A number of early Waitangi Tribunal claims questioned the environmental management practices of both regional and national government on the grounds that particular natural resources were being degraded and that the rangatiratanga of tangata whenua had not been recognised. Te Runanganui o Taranaki Whanui ki te Upoko o te Ika a Maui have also raised the issue of transfer of powers under section 33 of the Resource Management Act in the past.

The potential implications of Treaty claims on the Hutt River Environmental Strategy is something that will be addressed once claims have been resolved, should the need arise. HCC, UHCC and WRC recognise the importance of the Hutt River to Maori, and will look at ways to address iwi concerns and values.

4.2.4 What we want to do

We want to protect and enhance the cultural values of the river and its margins.

4.2.5 What we need to do

- ***Plant riparian margins and recreate wetland areas wherever appropriate.***

Tangata whenua consider re-establishing swamp areas and native flora and fauna to be priorities. Many of the native species that once grew on the Hutt floodplain have significance both culturally and historically. Some of these species are still present, but in low numbers. There are many opportunities to use species that are traditionally harvested such as flax (*Phormium tenax*) and watercress (*Rorippa microphylla*).

- ***Plant species of cultural importance wherever appropriate.***

Increasing the number of species valued by tangata whenua is important to sustain the traditional use and values of these species to tangata whenua.

- ***Support Te Ati Awa to review the management of all existing sites and areas of cultural significance and prepare an action plan for their future management and protection.***

The Regional Freshwater Plan identifies several ways in which the Regional Council can assist in the protection of sites and areas of significance, including development of protocols for sites and plan changes to register sites.

- ***Protect sites and areas of cultural significance.***

In addition to the Regional Freshwater Plan, another more formal way of protecting waahi tapu is to follow the heritage order process. A heritage order can be made to protect "any place of special interest, character, intrinsic or amenity value or visual appeal, or of special significance to tangata whenua" (section 189, RMA). A heritage order means that the special character of the place cannot be disturbed without the consent of the relevant heritage protection authority.

- ***Erect information boards at sites of cultural importance wherever appropriate.***

A lot of the history in the Hutt Valley is unknown by many people. There are plenty of cultural sites of significant value that could be identified with information boards describing their history.

- ***Encourage tangata whenua to become involved in the interpretation of cultural values and sites wherever appropriate.***

Any information boards erected require expertise from tangata whenua regarding their interpretation. There are also opportunities for tangata whenua to improve the wider community's knowledge and understanding of the cultural values and sites associated with the river, for example, by running guided heritage trails on a concession basis.

- ***Allow for traditional uses of the river and its margins.***

There are several traditional activities and rights currently restricted because of either the changed river environment or governance of the Hutt River. We need to accommodate any such uses by iwi and take into account traditional rights, for example, customary fishing rights.

We also want to make sure that tangata whenua participate in the management of the Hutt River, and in implementing this Environmental Strategy. See section 4.6 for more information on this.

4.3 Contemporary History

The first European arrivals set up tents by the banks of the river and established Britannia – but moved to Thorndon because of repeated flooding within first few years. The Hutt River was frequently in flood and flooded the huts and tents of the immigrants.

"The Hutt River in flood was at times an awesome sight. The river tore at its banks and great trees and branches were borne downstream… the effects of these floods became worse when the white men came with their axes and cut down the trees and shrubs which formerly had offered some resistance. When white men came to build their houses in the valley they erected them on high piles but these were frequently not successful in preventing the floodwaters from entering over ground floors of the houses."[5]

Despite the early problems, Europeans settled in the Hutt Valley. Shops and businesses such as the Britannia Hotel and Stores, and the Union Bank of Australia sprang up along the foreshore in the early 1840s. People also started to settle further up the river close to what is now the southern end of the High Street of Hutt City. During the 1840s there were increasing disputes over land between Maori and Europeans, with Fort Richmond being built in 1845 (close to the site of the present day Ewen Bridge). Settlers began ransacking Maori houses and gardens, and troops burnt down Pa and a Maori church. In retaliation, Maori drove out about 200 settlers.

"Tension grew, with numerous skirmishes, until the European soldiers captured Te Rauparaha, flushed out Te Rangihaeata and destroyed the Maori hilltop retreat. Then the Hutt Valley became peaceful."[6]

Between 1850 and 1880, the forests that had covered the floodplain were cleared and many of the swamps drained. In 1845 almost 30% of the settlers were employed in sawmilling. The huge earthquake in 1855 and numerous severe floods had catastrophic effects on the settlements. From the 1870s, development of the floodplain started in earnest, with industry concentrating in Petone, as Lower Hutt was too susceptible to flooding.

Railways, cheap flat land, lots of fresh water and a lack of neighbours to object to their activities were the major attractions for industry. Lower Hutt remained an agricultural area for a long time, with numerous market gardens. There were a few attractions, such as McNab's (Bellevue) and Mason's houses, and gardens that were popular for picnics during the Victorian era.[5] Some of the farms were large, for example, Alfred Ludlam farm, which in the mid-1840s, covered what is now Woburn.[6]

The forests remained for a much longer period in Upper Hutt alongside areas of remote farmland. Clearing the forests for development did not really start until the 1900s. Saw mills dominated the industry of Upper Hutt, with mills at Akatarawa, Birchville, Te Marua, Mangaroa and Moonshine. Mills in the Akatarawa Hill's were still operating in the 1960s and Mallaby Mills at Silverstream remained operational until the 1980s.

The population of the Hutt Valley expanded rapidly in the 1880s, particularly in Petone, as a result of industrial development. The railway workshop opened in 1877, then the meat works, a jam canning factory and woollen manufacturers. Petone changed from a small farming area, which was prone to flooding, and became a substantial town and manufacturing centre in the following ten years.[6]

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5 WRC, 1991 *The Hutt River: A Modern History 1840-1990*

6 Millar, D.P. (1972) *Once Upon a Village: a History of Lower Hutt 1819-1965*

The early 1900s saw the decline of farming in the Hutt Valley and rapid suburban growth. This was partly as a result of the improved communications with the road and railway and also the control of the Hutt River, as the floodplain became a safer place to live. After the depression in the 1920s and 1930s, industry expanded in Gracefield and Seaview areas and the population of the valley continued to grow, to give us the present day Hutt Valley community.

Did you know that…

The Hutt River and tributaries were admirable waterways for the [early European] settlers. They provided trouble-free navigable water as far as Belmont did… The tide flowed nine feet [3 metres] deep where….[Ewen Bridge] now stands, and salt water fish came up to a point just north of the bridge on the high tide.

The river system became a very attractive place for boat builders. Its proximity to timber and its quiet waters were ideal for such activity… The need for small vessels to ply from the Hutt, cross the harbour, and visit the whaling stations in and around Kapiti made the industry a profitable one. In 1840, Messrs Meech & Oxenham announced to the "gentry and public", that they were able to accept orders for the construction of vessels in their shipyard on the western bank of the Hutt River. In January, 1841, the 16-ton "Sandfly" was built… A year later, 1842, a boat builder named Sinclair constructed a 30-ton vessel for the Kapiti and Nelson trade at his Hutt River yards…. Mathieson's shipyard on the Waiwhetu built a 55-ton, copper-bottomed vessel in 1848"

(Millar, D.P. *Once Upon a Village: A History of Lower Hutt*)

4.3.1 What we want to do

We want to protect and enhance the historic values of the river and its margins.

4.3.2 What we need to do

- ***Consider using tree species of historic value.***

Several of the place names in the Hutt Valley give us an indication of what once grew in particular locations, for example, Birchville and Totara Park. Focusing on using species like beech (*Nothofagus spp.*) and totara (*Podocarpus totara*) in these areas will enhance the heritage values of such areas.

- ***Establish a Heritage Trail and erect information boards at sites of historic importance wherever appropriate.***

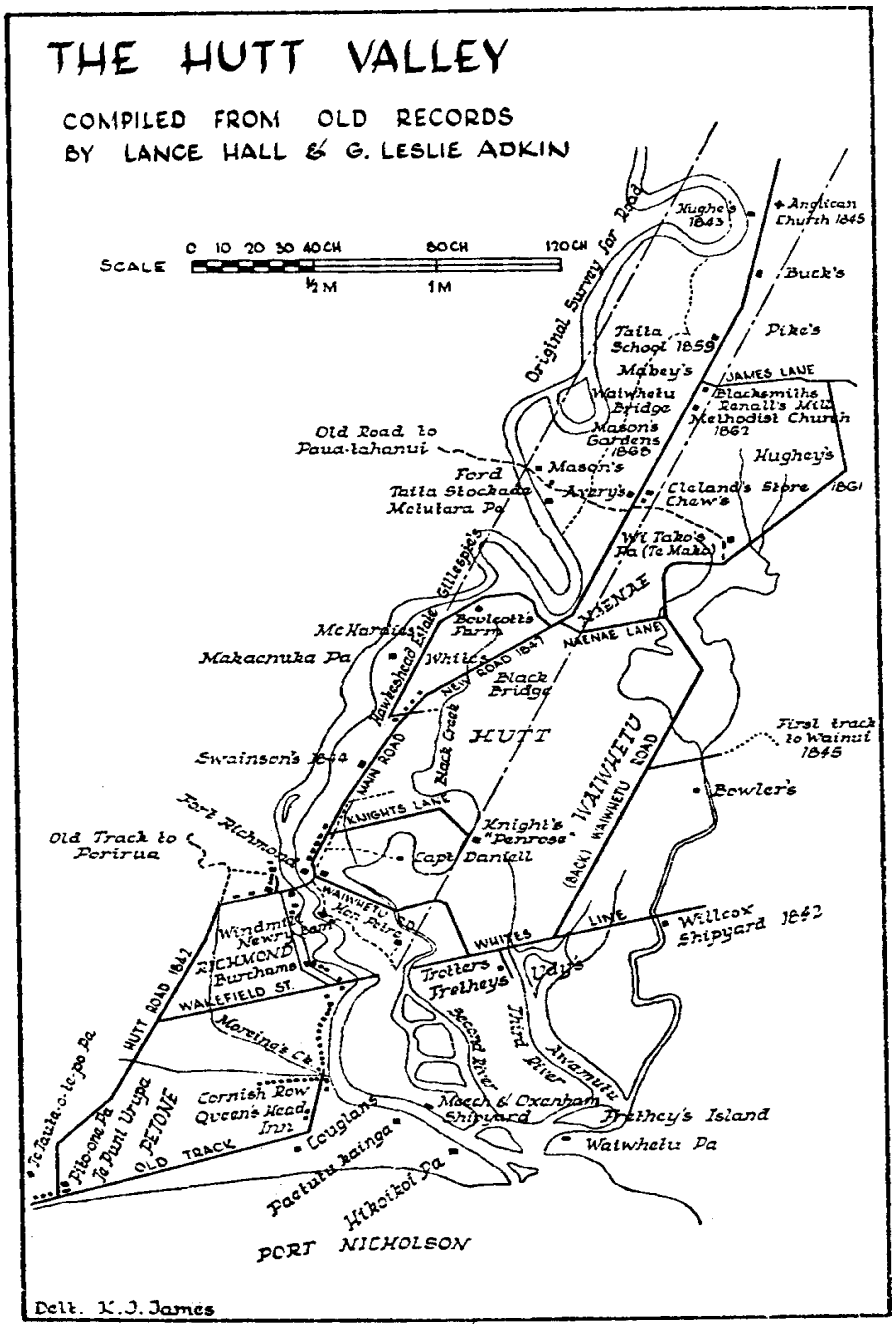
The history of the Hutt Valley is in danger of being lost. There are many historic sites within the Linear Park of significant value. Information boards could be used to identify historic sites and describe the site's historical values. The maritime and boat-building history of the lower part of the river is a good example.

There is also an opportunity to establish a "heritage trail" along the river identifying and linking sites and areas of historic importance.

- ***Take into account the need to protect sites of historic importance wherever appropriate.***

There are a few sites that are close to the river's edge that might be affected by flood protection and other works within the Linear Park. These sites must be taken into account when undertaking any works that have the potential to adversely affect them. For example, the tearooms in Birchville are close to the river and may be affected either by flooding or proposed flood protection works.

The followng map has been copied from David Millar's *Once Upon A Village*.



4.4 Landscape and Visual Quality

The Hutt River and its tributaries were instrumental in creating the floodplain landscape. A few small remnants of the native vegetation that once covered the plain still remain. Almost continuous bands of exotic vegetation, mostly willows, stretch along the banks from Birchville down to the sea. They visually and physically separate the river corridor from the rest of the floodplain and tend to restrict people's view and appreciation of the river.

The Hutt River can be divided into five landscape areas:

- **Te Marua Basin**.
  Predominantly rural with the river corridor having steep banks and willow plantings.
- **Birchville Gorge**.
  Narrow valley running through an urban area with native vegetation on the surrounding hills.
- **Upper Hutt Basin**.
  Urban, with some farming and forestry, dense secondary and regenerating native bush on the surrounding hills.
- **Taita Gorge**.
  Narrow valley with a tree-lined corridor.
- **Lower Hutt Basin**.
  Low-lying urban area dominated by the State Highway and becoming more industrial towards the mouth.

The upper reaches of the Hutt River have high natural values. Although the middle and lower reaches have been highly modified, the river is still recognised by the community as giving a sense of naturalness to the surrounding urban areas. Participants in the public survey undertaken in Phase 1 of the Hutt River Floodplain Management Plan highly valued the perceived "natural" character of the Hutt River.

The mouth has the most neglected appearance of the river, with industrial uses such as the sand dredging operation and large-scale industry, intensive reclamation and derelict developments dominating the landscape.

Despite the perceived "naturalness" of the river, river control works have tended to produce a predictable configuration of stopbanks, mown berm, riprap protection, rock groynes and extensive willow plantings over long stretches of the river.[7] Consequently, many reaches of the river appear very similar, with a loss of the more varied character that once existed.

The Hutt Valley community places a high value on the "natural" character of the river and its margins. The character changes along the river, with a decrease in visual quality downstream and increasing urban influence. Natural processes form the underlying landscape and these should be reflected in the development of the river margins, for example, the river meander at Te Haukaretu Park and the maritime influence by the river mouth. While the river and its banks provide a series of linked open spaces along the river, the quality of this space has sometimes been ignored and could be improved. Significant stretches are bleak and featureless. These stretches could be enhanced with plantings, and by adding variety to the topography, for instance, by creating small mounds and hollows to break up flat areas. The visual variety along the river margins could be greatly enhanced by providing a mix of open and planted areas, native and exotic species, and differences in the levels of maintenance.

[7] Boffa Miskell, 1991, Section 5.5 Visual Quality, p.44

4.4.1 What we want to do

We want to protect and enhance the visual quality of the river and its margins.

4.4.2 What we need to do

- ***Provide a balance of open and planted areas, including planting around the perimeter of sports fields, well maintained areas and "wilderness" areas.***

A balance of planting regimes helps add interest and variety to the visual and landscape values of an area.

- ***Mow berms to an agreed standard in harmony with the predominating landscape values.***

Mowing the berms to a standard matching the surrounding landscape lends continuity to the landscape values within an area.

- ***Position groups of eco-sourced native plants, especially flowering species to attract birds, to screen river users from road, and to provide a variety of experiences within the river margins.***

In some places planting can be used to help screen external detracting influences, such as the State Highway, and to give a sense of enclosure to the river margins. The focus for people using the Linear Park changes toward the river, rather than on adjacent urban influences. Planting can also be used to create spaces, winding paths or to enhance changes of ground level on the river berms.

- ***Open up views through willows by introducing gaps or pruning.***

Long stretches of dense, even-aged willows have masked the intrinsic landscape character and qualities of the river landscape. Section **13** explains why willows are currently used. By using eco-sourced natives wherever possible, the willows will become less dominant in the river landscape.

Where long lengths of willow planting screen the river, short lengths of rock rip-rap or groynes should be used at intervals to provide alternative bank edge protection so that willows can be removed to give views and access to the river. Alternatively, side branches can be pruned off the main trunks to give views through the willows. Native species can also be planted behind willows.

- ***Discourage vandalism.***

Vandalism and littering detract from the visual appeal of the river landscape. Often areas that look neglected are more prone to further vandalism and littering. Vandalism is something that is hard to control without strong community ownership of such areas, but regular maintenance and policing may help reduce the problem. Specifically, the use of sturdy structures, anti-graffiti paint, regular maintenance, signs, policing, regular rubbish checks and clearance could be used to deter vandalism.

- ***Store visually intrusive flood protection materials in screened sites.***

At present there are stockpiles of rock and concrete blocks used for flood protection works at various sites along the river. These can be visually intrusive if in open areas. Whilst it may be difficult to screen stockpiles on actual work sites, materials being stored for future use should be stockpiled in areas screened from view.

- ***Design all structures and site furniture to a high standard that complements the character of the local area.***

Buildings, street furniture and other structures can be visually intrusive despite being on a relatively small scale. Thought needs to be given to their location and design to ensure that they add to the visual appearance of the Linear Park rather than detract from it. There are a variety of styles of street furniture along the Hutt River at the moment, and a co-ordinated design more in keeping with the "natural" feel of the river environment would be more appropriate and enhance the visual quality of the river margins.

4.5 Recreation

Given the close proximity to major population centres, the Hutt River is a unique resource of tremendous value to the local community. Over one million visits are made to the Hutt River every year, which is greater than the total number of visitors to any of the Region's regional parks. The Hutt River and its corridor are well used for recreational purposes; for example, some 8,000 angling visits are made to the River every year, making it one of the most heavily fished rivers in the southern part of the North Island. Anglers, swimmers, canoeists and rafters regularly use the upper reaches of the river. The middle reaches, between Maoribank and Lower Hutt, are particularly popular with anglers, canoeists, walkers and picnickers. The Hutt River Trail runs from Birchville in the upper catchment down to the river mouth and is a popular walk.

The Hutt Valley rotary clubs are involved in monitoring the trail. There are also several commercial operators taking rafting trips down the Hutt River starting from Kaitoke.

Several activities are contentious within the community, particularly those associated with cars, motorbikes, dogs and horses. While these are legitimate recreational activities, they do provoke a certain amount of debate. A strong desire was expressed by many for motorised vehicles to be controlled in submissions to this Strategy. Others felt strongly that horses and dogs should be controlled.

There are lots of opportunities for improvement in areas that are unattractive or where access is difficult. Opportunities for the river to be promoted better, and to resolve conflicts between users exist.

Did you know that…

Horse-racing became popular in the Hutt Valley in the 1850s and 1860s.

"The nightmarish track conditions of the Aglionby course had not stopped race meetings, for at least three were held prior to 1855, in which year the earthquake raised the floor of the Valley several feet, and what is now Hutt Park appeared above the marsh for the first time. Frethey's Island was now only a memory. A number of people anxious to establish horse racing in the valley held a meeting under the chairmanship of E. J. Wakefield in 1856 and elected a committee to find a suitable site for a course, to make arrangements for leasing it, and to arrange a racing programme. Things moved fast. In the following year, 1857, the area around and including the former Frethey's Island was declared a Public Park and Racecourse by the Provincial Government. The first race meeting was held in early February: *The weather was very fine both days and the races were generally well contested, the number of visitors was very numerous, and everything seemed to pass off with the greatest satisfaction.* Hutt Park was now in existence.

(D.P. Millar *Once Upon a Village: A History of Lower Hutt)*

4.5.1 What we want to do

We want to improve and extend passive recreational facilities.

4.5.2 What we need to do

- ***Develop a unified, consistent signage system.***

Signs have a variety of functions including identification of places and routes, provision of information on public safety and uses, and interpretation giving information about an interesting place or area. At present, there are numerous signs giving directions and restricting certain uses of the river berms. These include WRC, UHCC and HCC signs and Hutt River Trail markers. Many signs have been vandalised, or are old and need replacing. Having different signs can also be confusing.

There is an opportunity to remedy this situation by developing a unified signage system throughout the Linear Park that can be gradually implemented, as existing signs are replaced. The signage system should look into the most effective way of conveying information, for instance, through the use of pictograms.

- ***Produce recreation guides that show where facilities are, what opportunities exist, hazard information, and the contact details of relevant interest groups.***

While there is room to improve the recreational value of the Hutt River and its margins, we could also promote the river more. By letting people know what facilities already exist and where various activities can take place and who to contact, more people will discover what the Hutt River has to offer. Some ideas as to what information could be included in recreational guides are given in Section **14**.

- ***Allow for commercially operated recreational activities at appropriate locations – for instance, horse riding, kayaking, and rafting.***

Commercial rafting and kayaking ventures have operated on the Hutt River, particularly in the upper reaches, for some time.

Commercial ventures should be limited to the provision of recreational activities aligned with the vision for the Linear Park. Commercial activities that do not damage the river or its margins, do not cause severe conflict with the recreational use of the Linear Park, or unacceptably disturb the local residents should be allowed. All relevant council policies relating to commercial operations on council land must be complied with prior to any concessions being granted.

- ***Upgrade and extend tracks to provide pedestrian access from Seaview Marina to Kaitoke Regional Park.***

This would give uninterrupted access for nearly the entire length of the Hutt River.

- ***Improve pedestrian access across and to bridges.***

The majority of the Hutt River Trail is suitable for pedestrian access, but there are stretches that could be improved. The trail could be upgraded to an all-weather surface to provide for a variety of users, along most of its length.

Access could also be improved with linkages to other tracks such as the Cannon Point Walkway. A network across the valley for local communities could be established by extending the trail up to Kaitoke Regional Park and down to Seaview Marina. In some cases, linking the Hutt River Trail with other trails and access ways will require improving access across the State Highway.

Access to and across bridges could also be significantly improved. As bridges are upgraded or replaced, pedestrian access along both sides of the bridge, access beneath the bridge and access to the bridge from the berms should be provided.

- ***Control access and provide information on specific use restrictions and allowed uses.***

There are conflicts between different recreational users. Motorbikes and cars in particular cause annoyance to those who wish to enjoy the peace and quiet of the river and its margins. Motorised vehicles do not sit well with the vision of the Linear Park and can cause damage to the river berms but we do recognise vehicles as a legitimate recreational use.

For this reason, vehicles are to be confined to specified formed tracks. The overview plans show which parts of the Linear Park motorbikes and cars are allowed, and which areas they are not. Bollards, fencing and gates are needed to limit or restrict motorised vehicle access. Signs and leaflets indicating restrictions in specific areas and a ranger to control restricted activities are essential, if the overall vision of the Linear Park is to be achieved.

Barriers restricting motorbikes from an area are also likely to restrict access to horses and possibly cyclists. Ways of maintaining access for horses, cyclists and pushchairs while restricting motorbikes should be investigated and used wherever possible.

Activities associated with dogs and, to a lesser extent, horses may also be in conflict with other users. Within all parks and reserves of the Upper Hutt area, dogs may be exercised under the control of their owners, provided that the dogs do not cause a nuisance or annoy other users of those areas. Exceptions to this rule are at all playgrounds and sports fields at any time and when UHCC approved activities are in progress. Within the Lower Hutt area, but not including children's playgrounds and sports fields, dogs are allowed on a lead for the entire length of the Hutt River. Dogs are allowed to run free in dog exercise areas along the eastern bank from Stokes Valley to Strand Park, and along the western bank from Benmore Crescent to Belmont Domain. Other dog exercise areas can be found in the areas from Kennedy Good Bridge south to Melling Bridge and from Melling Bridge south to Ava Park.

Dogs are also allowed in the following parks: Fraser, Avalon, Memorial, Sladden and Ava. Dog poo bins are proving to be very effective in reducing conflicts with other users and should be provided and regularly emptied at strategic sites.

Horses can cause significant damage to the river berms and stopbanks. For this reason, horse riders are asked to ride only on the formed tracks. While this limits where horses are allowed access to at present, with the long-term vision of upgrading and extending tracks, access for horses to the Linear Park should be improved in the future.

- ***Provide adequate car parking at key locations.***

Because the river is so popular and people need to get to it, any restriction of vehicle access means that car parking at key locations is essential. Locations where car parks may be required are also identified on the overview plans. Car parks should be open so that cars remain visible to deter vandalism.

- ***Create and maintain access to the river.***

Maintenance and enhancement of access to and along rivers is considered to be a matter of national importance in the Resource Management Act.

The majority of the river corridor of the Hutt River is already in public ownership but there are areas, particularly in the upper reaches, where private land borders the river. Ideally, all the land bordering the river would be publicly owned. This would guarantee access to and along the Hutt River, and allow for development and enhancement of the river margins for the entire length of the Linear Park.

- ***Bring the Linear Park into public ownership, or formalise access across private land.***

Public ownership of the Linear Park could be achieved using several options such as land purchase or swaps, reserve contribution, access strips and vesting. In cases where it is unlikely that a public agency can acquire land, and where this is critical for public access, formal agreements between the landowner and either WRC, UHCC or HCC should be drawn up. Formal agreements or easements will allow for access without requiring the land to be bought. Although this is not ideal, it will certainly help maintain and enhance public access to the river.

Dense willow plantings restrict access to the river. Ways of opening up pedestrian access down to beaches through the willows could include using short lengths of rock lining rather than willows to protect the bank edges, providing steps down to the water's edge, and keeping open sight lines used for cross-section surveys.

In other locations, landuses discourage people from using legal access routes. For example, where golf clubs or private gardens have encroached onto public land and restricted public access. Where public access is allowed, signs and leaflets should advertise this. Where access is restricted, formal agreements should be investigated.

A review of all restrictions to public access and a subsequent plan with a programme for mitigating any restrictions is required. Some of these restrictions are marked on the overview plans contained within this Strategy.

- ***Employ a river ranger to act as first point of contact for the community.***

At present, staff from WRC, UHCC and HCC undertake a variety of roles including policing, promotion, community liaison, and maintenance of facilities. In some cases this requires using external resources, as council staff do not have sufficient time to deal with the increasing workload. There is enough work of this nature to warrant employing a ranger to act as the first point of contact for the community, similar to that of a ranger in a regional park. The WRC has approved the establishment of a ranger position, commencing in 2002, for the Hutt River.

- ***Provide and maintain facilities (toilets, litter bins, street furniture, etc.).***

Although there are a lot of facilities already, there are a few places where more are required. Structures within the river corridor zone need to be carefully designed and sited, and require regular maintenance, particularly after a flood event. Structures and changes to existing structures must be sited and designed correctly. Incorrectly sited structures may cause further erosion or flooding in the riverbed or floodplain, increasing the cost of damages experienced during a flood. Unless a clear argument can be given otherwise, structures within the river corridor zone of the Linear Park should be limited to toilet facilities and existing structures only.

Did you know that…

In 1874, the Wellington Acclimatisation Society released brown trout in the Hutt River "… W.F. Stokes stocked the river with 900 trout that he had transferred from the Wainuiomata Stream. Angling on the river now became a popular pastime for Hutt Valley and Wellington residents. In 1885, a 12lb, 30 inch trout was caught at Petone, and its size so impressed the successful angler that he took it off to the Colonial Museum in Wellington to have a plaster cast made of it."

(Millar, D.P. *Once Upon a Village: A history of Lower Hutt*)

4.6 Tangata Whenua and Community

Kaitiakitanga is an essential part of the relationship of tangata whenua with their land. The nature and form of kaitiakitanga is determined by tangata whenua and can change from area to area. Central to kaitiakitanga is the understanding that successive generations have a responsibility to protect and nurture the mauri of their natural environment.

In some areas the local communities have a strong connection with the Hutt River, with good access, views of the river and berms, and a sense of ownership. In these places, many of the local residents voluntarily monitor inappropriate uses, littering and vandalism. In other areas, roads and stopbanks physically and visually limit that affiliation. In an area already neglected, there is more likely to be a problem with vandalism and littering. Experience has shown that where the local community is actively involved in specific enhancement projects and management, problems of littering and vandalism are reduced.

4.6.1 What we want to do

We want to involve iwi and the community in decision-making and make sure that tikanga is appropriately applied.

4.6.2 What we need to do

- ***Establish a mechanism for ongoing tangata whenua and community participation in the management of the Linear Park.***

A mechanism for tangata whenua and the community to be intimately involved with decision-making, reviews and implementation of the Environmental Strategy should be set in place. This should be by having representatives on a committee or working group that is charged with the management of the Linear Park and implementation of the Environmental Strategy. The relevance of a charitable trust, and the additional empowerment and other advantages it may provide, warrants further investigation. Possible models for consideration include the management frameworks established for Karori Wildlife Sanctuary and Matiu Island.

We also need an over-arching management committee comprising officers and councillors from UHCC, HCC and WRC and iwi representatives to investigate options for such a mechanism and to establish the preferred management framework. The management committee will then take overall responsibility, with the community/tangata whenua group being responsible for supporting and assisting with the implementation of the Environmental Strategy.

Ensuring the relationship of tangata whenua with the river is taken into account is also identified in the Regional Freshwater Plan and the Regional Policy Statement. The Hutt River Floodplain Management Plan will also address the relationship between tangata whenua and the river.

- ***Establish community links to the River Margins.***

In several places along the river, the State Highway or stopbanks separates the local community from the river, for example, at Taita. To encourage a sense of “ownership”, the river and its margins need to be better connected to the adjacent local communities.

This could include involving the community in tree planting, rubbish clearance, establishing marker-poles

(such as at Hikoikoi), monitoring activities on the river, as well as improving access over the physical obstacles.

- ***Encourage the use of the river and its margins for community festivals and events that are of recreational or community value.***

Festivals and events such as the Hutt River Festival and the establishment of the Kiwi Walk provide valuable opportunities to increase the sense of "ownership" and involvement by local communities.

There are several groups such as Hutt 2000, Upper Hutt Promotions, and various community groups such as Rotary and Probus Clubs that are already involved in promotional activities involving the Hutt River. Supporting festivals, events, and commercial activities that fit in with the "Linear Park" vision, will also attract more people to the river.

Provided they do not damage the river or its margins, severely conflict with the recreational use of the Linear Park or cause unacceptable disturbance to local residents, such events should be encouraged. Prior approval for such events from the river ranger or relevant managers from WRC, UHCC or HCC, as appropriate, must be given.

- ***Investigate opportunities for using the Linear Park in education initiatives.***

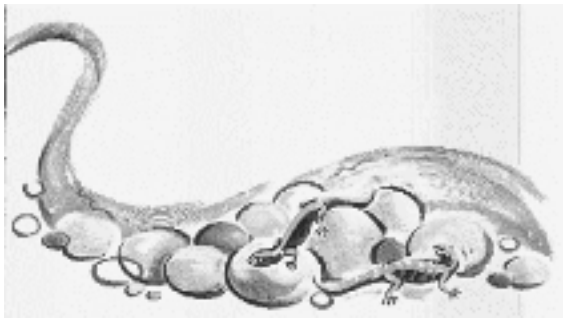
Education is critical if we want to have a better environment through an environmentally responsible community. Educating people may reduce many of the problems currently experienced such as littering, vandalism and pollution in the Hutt River environment.

By acquiring knowledge and skills, a community will have an increased ability to determine the state of its local environment. Experience shows that community involvement also brings community cohesion and sometimes has quite unexpected social benefits. Pride in the local environment is an obvious spin-off from projects where people are actively involved and where they can see or understand the results. Undoubtedly community involvement in environmental projects and changed practices will bring valued improvements to the local environment.

With support, people may find they gain new skills and knowledge, which can be applied to other aspects of their lives. The relationship between poor environmental quality and poor health is well documented. There are obvious benefits from being involved in outside projects, many of which require some physical activity. Health benefits flow from enhanced environmental quality as the recreational experiences in cleaner rivers are improved as a result of better environmental practices.[8]

WRC has an education/communication strategy aimed at raising community awareness about the environment, identifying the benefits of good environmental practice and providing people with the tools to change their behaviour. One of the key areas identified for targeting the education initiative is water quality. The Hutt Valley is suggested as a suitable area for a care group, an education trail and for establishing links with small to medium businesses in the Waiwhetu/Seaview area.

Close liaison with the Environment Division will mean that the environmental education policy and this Environmental Strategy can be achieved through community participation.



[8] WRC (June 1999) *A Better Environment: An Education/Communication Strategy*

5 Proposals for Each Area

5.1 River Mouth/Harbour

Objective: enhance estuarine character of the river mouth, recognise and build on the industrial/urban character.

This area extends from the Seaview Marina to Estuary Bridge, including Hikoikoi Reserve but excluding the sand extraction plant on the western bank.

The harbour dominates the river character. The area has a strong natural outlook with an industrial backdrop. Present industrial uses could alter with time as the potential of the area is recognised. The riverbanks are not very attractive to look at, with lots of old demolition material evident. The Hutt River Mouth and estuary is a regionally representative tidal mudflat with a high bird population (especially sea birds and waders). The Department of Conservation considers it has a moderate value as a Site of Special Wildlife Interest (SSWI), as well as having educational and scenic values. This area was once a valuable whitebait spawning ground, but land use changes and bank edge protection works have destroyed this.

Land reclamation has led to a narrowing of the Waiwhetu Stream mouth. There is some debate as to whether the constricted mouth causes floodwaters to back up the stream. Previous industrial land uses and the consequent discharge of wastewater into the stream has contaminated the stream sediments. Ways of cleaning up the stream are being looked at by the Waiwhetu Stream Rehabilitation Project.

There are several pa sites in this harbour area such as Hikoikoi, Waiwhetu, Owhiti, Puharakeketapu and Ngutuihe. Te Ati Awa has plans to develop the Hikoikoi pa site, including building waka launching ramps. The majority of the land affected by these proposals is outside the Linear Park. Opportunities exist to integrate Te Ati Awa development proposals with the Linear Park in the future.

There are several boat sheds, a boat ramp and a sea scouts group on the western bank. The Hutt River Trail starts from Hikoikoi Reserve, which is in itself an important recreation area.

Did you know that…

"According to [Maori] traditions the harbour and the estuary are the work of two great taniwha. The estuary, once a great lake, was the home of the mild-mannered Whataiti; the wilder Ngake lived at the more turbulent southern end. The estuary with its flat floodplain was formed when Ngake surged toward the northern shore in a desperate attempt to escape into the open sea. Trapped in the shallows, he wound himself up into a great fury, his tail lashing backwards and forwards, scooping up sand and piling it into the corner, which is why it is so shallow now."

(Park, G. *Nga Uruora: the groves of life*)

Key Proposals:

- ***Plant bank edges from the river mouth and Waiwhetu Stream confluence up to Estuary Bridge with eco-sourced native estuarine and coastal species.***
- ***Use planting to relate the two sides of the river mouth.***
- ***Create a recreation link along Waiwhetu Stream.***
- ***Develop a walkway linking the Hutt River Trail to Seaview Marina. The design of the walkway should reflect the area's strong industrial character and history, and the relationship with the harbour.***
- ***Improve recreational links north around Estuary Bridge.***
- ***Provide platforms on Estuary Bridge for fishing to minimise conflicts with pedestrians and exclude fishing from between central piers.***

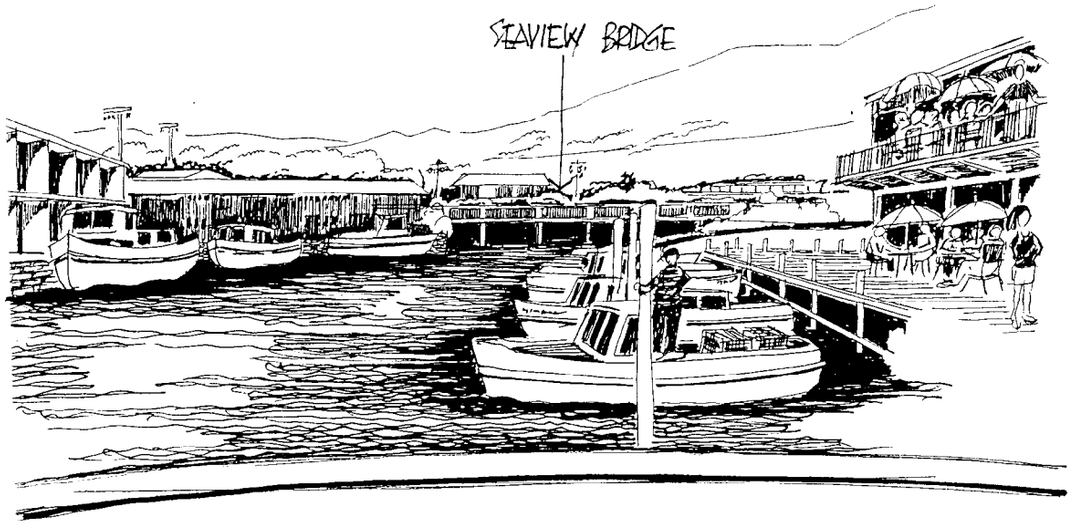
Estuary Bridge is very popular for fishing from but currently the width of the footpath means that fishermen are restricting other users. If the bridge is upgraded then bays should be included to provide additional space.

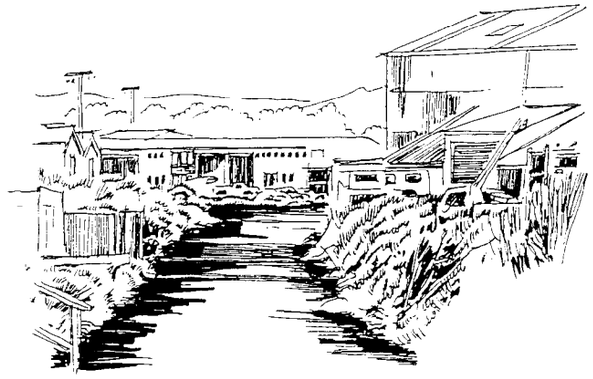
Currently fishing between the central spans of the bridge adversely affects kayaks and boats passing beneath the bridge. Restricting fishing from between the central piers will allow kayaks and boats to pass more easily.

Key site: *long-term this could become an important foreshore recreation area.*

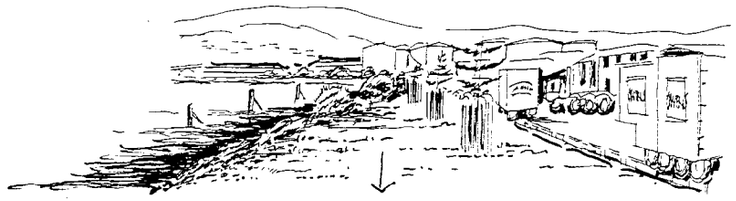
This area of the river has a particularly interesting history, with drastic changes resulting from earthquakes, the series of pa sites, and the history of boating and boat building. If overseas examples of development of such areas are followed, it is also an area that could continue to change, as the recreation and residential potential of Seaview industrial areas is recognised.

As the harbour edge to Seaview has such a strong urban backdrop, any attempt to recreate the sea-edge as "natural" may become lost and seem insignificant. Instead, this edge could be developed in a strongly urban way, holding its own against the background. The industrial history of the area, together with the area's relationship to the harbour, could be used as a starting point in the design of a walkway to Seaview Marina. In time this walkway could be adjacent to cafes and restaurants looking out over the harbour.

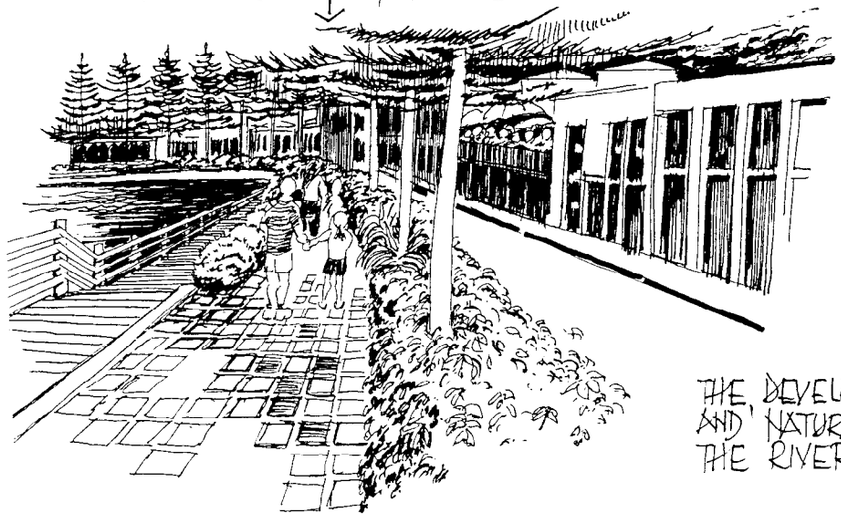




THE WIDENING OF WAIWHETU STREAM TO CREATE A BOAT ~~HARBOUR~~



VIEW NORTH ALONG WATER FRONT



THE DEVELOPMENT OF WALKS, 'FORMAL' AND 'NATURAL', AROUND COAST FROM THE RIVER MOUTH TO THE MARINA

Hutt River Environmental Strategy

Concept Sketches: Seaview/ Marina

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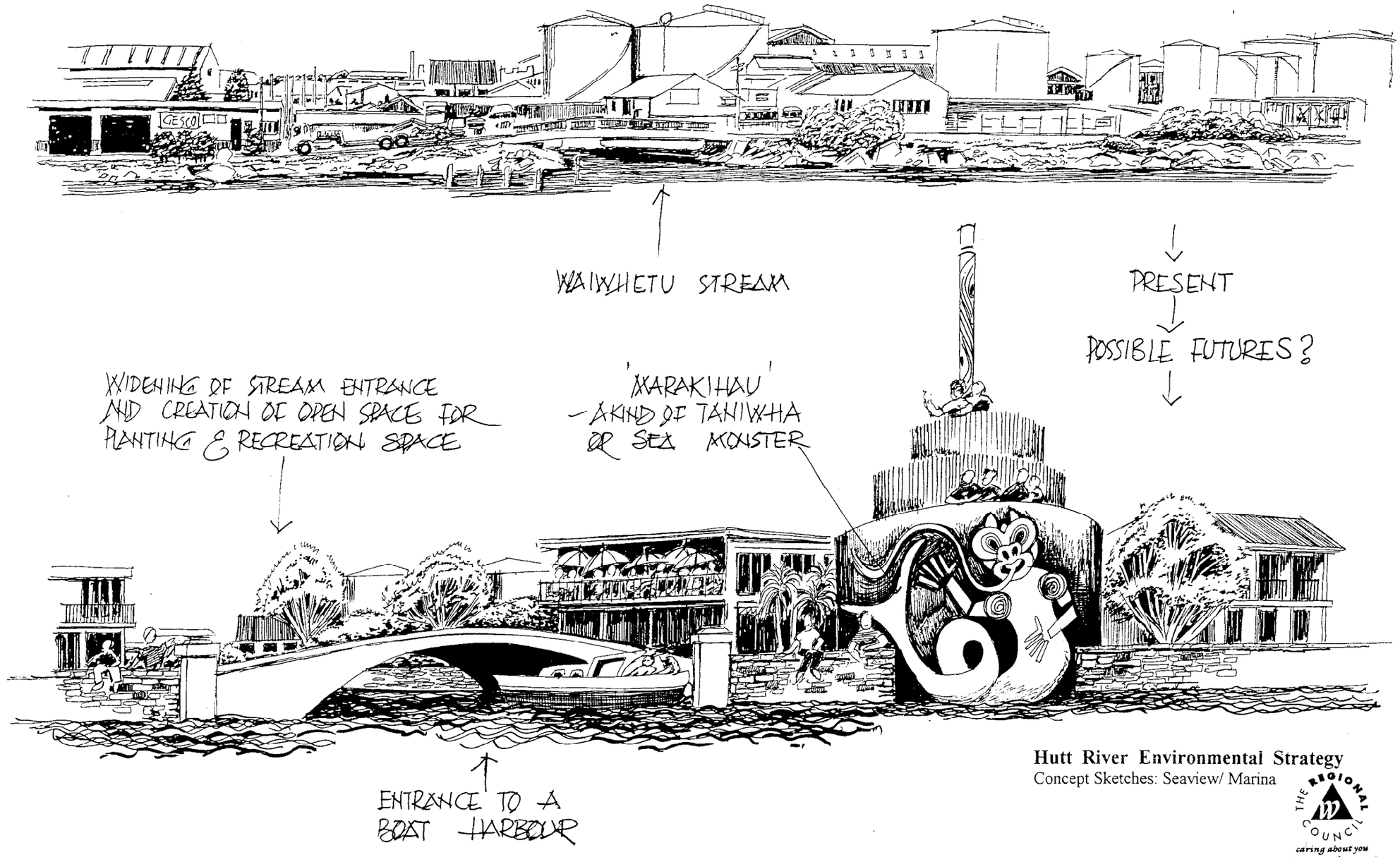
February 2000



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Concept Sketches: Seaview/ Marina

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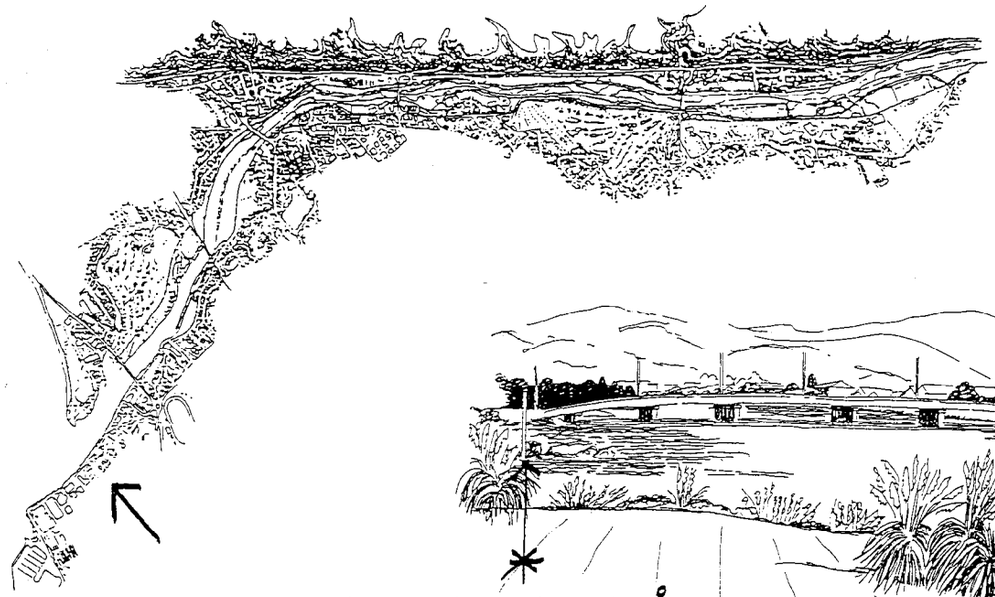

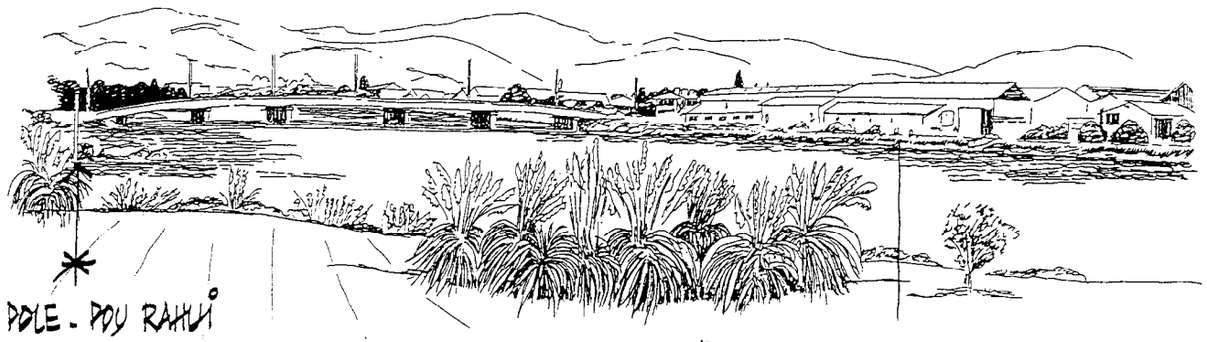

MARKER POLE - POU RAHUI

RESTORATION OF LOWER ESTUARY

- Plant edges of river mouth to Waiwhetu Stream
- Develop walkway out to marina
- Recognise structured character and history
- Anticipate future residential apartments/ cafe's along waterfront

Hutt River Environmental Strategy

Concept Sketches: Seaview/ Marina

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5.2 Ava

Estuary Bridge to Ewen Bridge.

Objective: emphasise the estuarine character. Use eco-sourced native estuarine plants for habitat creation and enhancing recreational use.

The river becomes increasingly estuarine in character, and orientation moves from the river mouth and the harbour to the inland hills. Open in character, the river is close to residential communities. The area is popular for water-based recreation including whitebaiting, fishing from the Estuary Bridge, and boating. Shandon Golf Course dominates the western bank, with Memorial Park, Sladden Park, Ava Park and Strand Park providing valuable open space for formal and informal recreation. There are several interest groups and clubs based on the banks of Te Momi Stream. There is also a rafting entry and exit point on the eastern bank by Estuary Bridge, as well as a boat ramp in Sladden Park.

As with the previous reach, this part of the river was a whitebait spawning ground. There are a few spawning ground remnants in the backwaters and tributaries of the Hutt River. Te Momi Stream, the backwater by Sladden Park boat ramp, and Black Creek all offer opportunities to recreate whitebait habitat and spawning grounds.

The Department of Conservation and the local community have been involved in a successful riparian planting programme along the banks of Te Momi Stream.

Did you know that…

"Shandon Golf Course used to be an island? As the Hutt River Board progressed with stopbanking along the river, they had to decide what to do with Gear Island, (now Shandon Golf Course) which was then a large island near the estuary. The Board blocked off the entry of the river on the western side and filled in the bed so that only one bank was needed down the eastern side of the island. An embankment was put across the northern end and the water was shut out and most of the bed filled in. Then there was no need for a suspension bridge by which to cross from one side of the island to the other.

The suspension bridge had been showing signs of wear and tear and needed repairing. The River Board acquired the land from the two landowners in order to do this. Then came the important question as to what to do with the newly acquired property. Sir Frances Bell (an eminent barrister and once mayor of Wellington) recommended that the area be a sports ground. His view was based on the idea that there was no good sports ground in the area and it would be, and it is, an attraction to Wellington and local players."

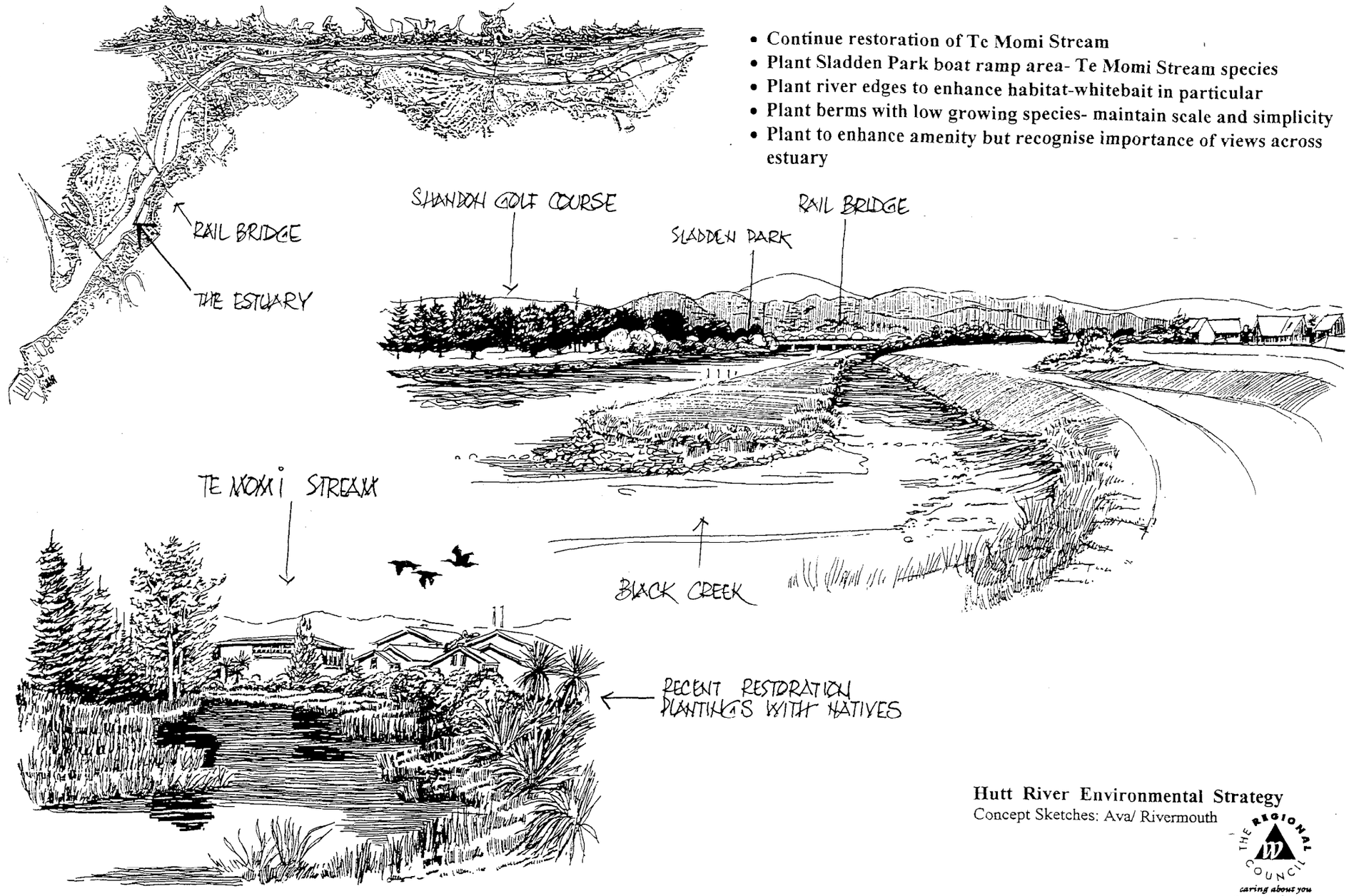
(Treadwell, C.A.L. 1959 *The Hutt River: Its History And Its Conquest*)

Key Proposals:

- ***Plant the river edge and Black Creek with low native grasses and sedges suitable for whitebait spawning and to improve visual amenity.***
- ***Enhance the Sladden Park boat ramp area with plantings of similar species.***
- ***Plant blocks of vegetation on the berms to create interest, while recognising the importance of these areas for recreation.***
- ***Keep planting predominantly low to maintain visual connections with the river, river mouth and harbour.***
- ***Investigate the feasibility and benefits of re-introducing throughflow to Te Momi Stream.***
- ***Enhance existing planting along banks of Te Momi Stream.***

> ***Key site:*** *opportunities exist for habitat creation and improvements to the recreational use and visual amenity of the area.*

- Continue restoration of Te Momi Stream
- Plant Sladden Park boat ramp area- Te Momi Stream species
- Plant river edges to enhance habitat-whitebait in particular
- Plant berms with low growing species- maintain scale and simplicity
- Plant to enhance amenity but recognise importance of views across estuary



Hutt River Environmental Strategy

Concept Sketches: Ava/ Rivermouth

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Hutt River Environmental Strategy

Concept Sketches: Ava/ Rivermouth

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5.3 Central Business District

Ewen Bridge to Melling Bridge

Objective: recognise the recreational value of the berms as waterside open space within the city. Develop a unique identity as the "City Section" of the Hutt River.

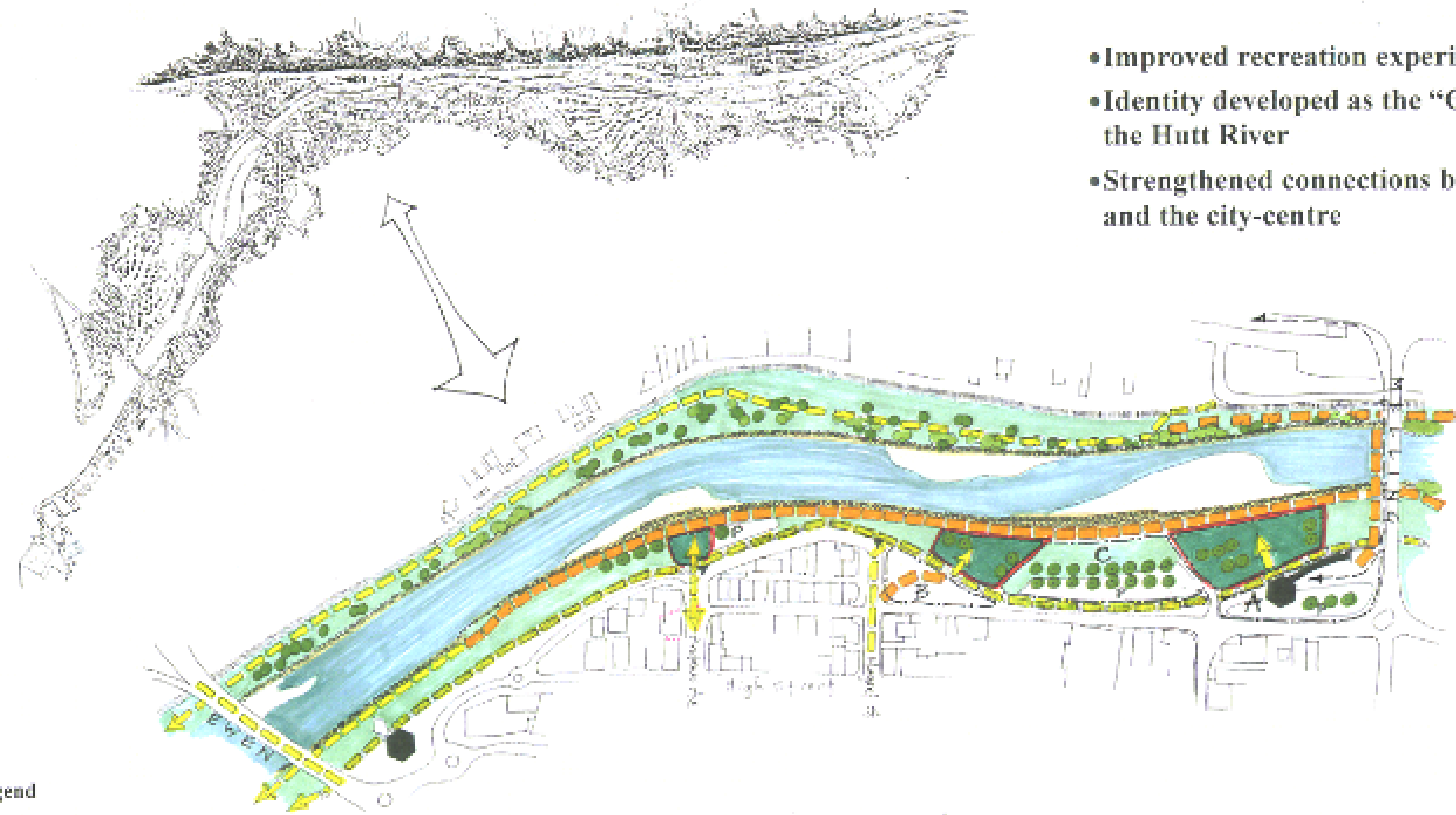
This reach of the Hutt River has a strong urban influence. The eastern bank is dominated by car parks, with poor connections to the river from the berm, and from the city (particularly towards Melling). The western bank is less urban in character, with long fairly open stretches separating the river and the adjacent community. There is quite a lot of history associated with this part of the river, with the Te-Ahi-o-Manone Kainga site and the old barracks site just upstream of Ewen Bridge on the eastern bank.

There is a rafting entry/exit point on the western bank upstream of Ewen Bridge and by Melling Bridge. A model boating club occasionally uses the river upstream of Ewen.

Key Proposals:

- ***Replace willows with strong "urban" character river edge, backed by specimen trees and other planting on berms.***
- ***Terrace river edge at strategic locations to give access to the river.***
- ***Incorporate river-edge tracks and paths and create new walking/jogging loops between Ewen and Melling Bridges.***
- ***Remove car parking spaces to allow a greater emphasis on recreational uses.***
- ***Strengthen pedestrian access to and from the city.***

HCC Plans have been tied in with the flood protection works planned by WRC in the concept plans for this area. Planned river realignment and bank edge protection works will involve a loss of land from the eastern berm. The proposal to extend the Melling Railway line over the river to link it more strongly with the CBD has also been included. The concept plan shows the removal of car parking from the eastern berm. The current under-use of car parks in this area, and the possible relocation of parking for a new railway station, provide a rationale for removing some of the car parking. This would provide an ideal opportunity for a change in emphasis for this area to recreational use.



- **Improved recreation experience**
- **Identity developed as the "City Section" of the Hutt River**
- **Strengthened connections between the river and the city-centre**

Legend

(A)	**Site where improved connections between the river and the city** could be more easily achieved. (Site has no road passing between it and the stop-bank/river-rail).
Railway station symbol	**Site for possible new railway station**, extending the Melling line (existing HCC idea); here proposed to incorporate restaurant/café overlooking the river, and car-parking relocated from the river berm. Mirrors placement of Govind Bhula Park at Ewen Bridge, marking the two ends of the "City Section" of the river.
Hexagon symbol	**Govind Bhula Park.** Walkway from existing steps proposed as linking to new river-edge terracing.
Green space symbol	Spaces articulated (through planting and design detail) as **linking main pedestrian routes from the city, down to the river-edge.**
(C)	**Area planted with high-headed specimen trees** and blocks of other plants as possible, to provide backdrop for river-edge recreation
▼	Proposed tall vertical element, visible from within the city, to mark main pedestrian access points to the river. Could be similar to the pole installed by HCC at the river-mouth; could be something commissioned locally.
(B)	Site where **improved connections between the river-berm and the city** could be more easily achieved. (Site has no road passing between it and the stop-bank/river-area). This site ties into Margaret Street, which leads to the city-centre, and links into main pedestrian routes
Hard edge symbol	**Urban-character river-edge** (eg rock or other hard edge - replacing willows in the long-term). Proposed to incorporate river-edge track, with planting of high-headed specimen trees and other blocks of planting on the berm (as possible), to provide back-drop for river-edge recreation.
Terracing symbol	**River-edge terracing** – river-edge protection works designed to provide access down to the water/beach areas. Eg: terracing with flat/square rocks
Yellow dashes	Existing track
Orange dashes	Proposed track – built into (or beside) river-edge protection works. Where track passes car-parking areas, consider its placement on a lower level. Improved track links over river as part of any bridge-work at Melling
Green circles	High-headed specimen trees
(P)	Proposed car-parking area
Stop-bank symbol	Stop-bank
←---→	Possible railway line extension (existing Council idea)

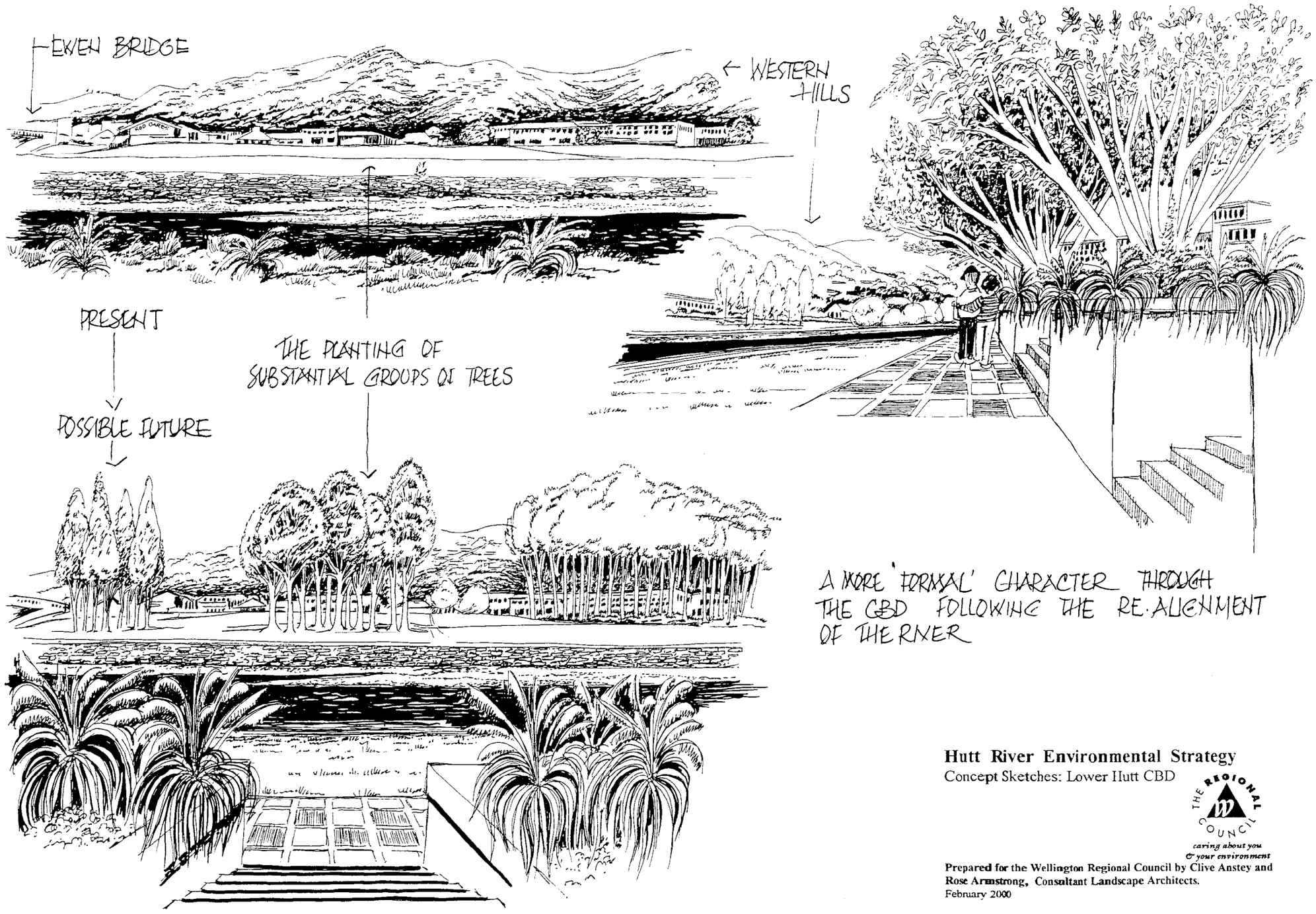
Hutt River Environmental Strategy

Concept Plans : Lower Hutt CBD

Scale : Approx 1:2500 @ A1
(Main plan) Approx 1:5000 @ A3

Plans prepared for the Wellington Regional Council by Rose Armstrong and Clive Anstey, Consultant Landscape Architects

February 2000



Hutt River Environmental Strategy

Concept Sketches: Lower Hutt CBD

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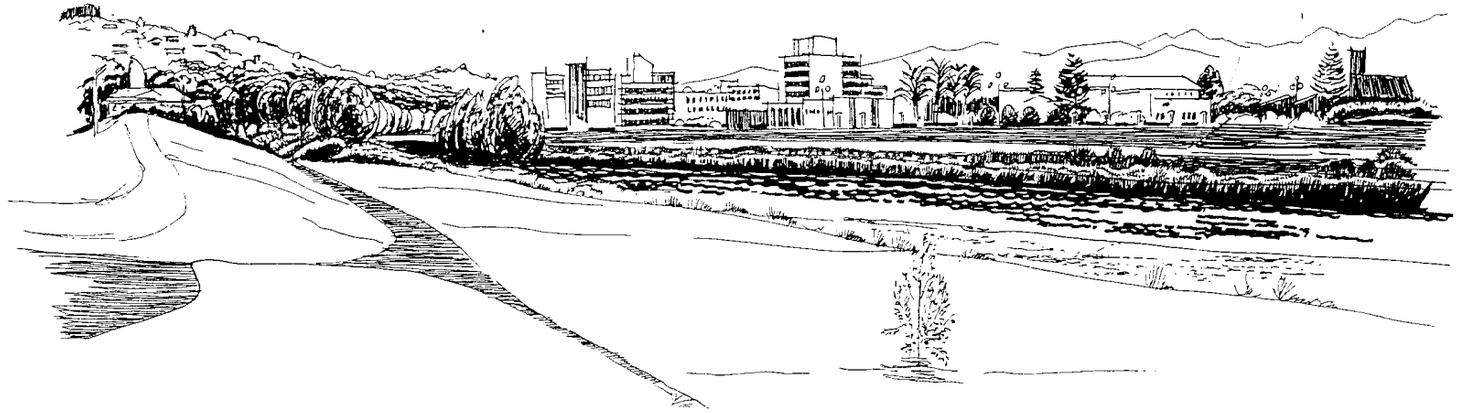
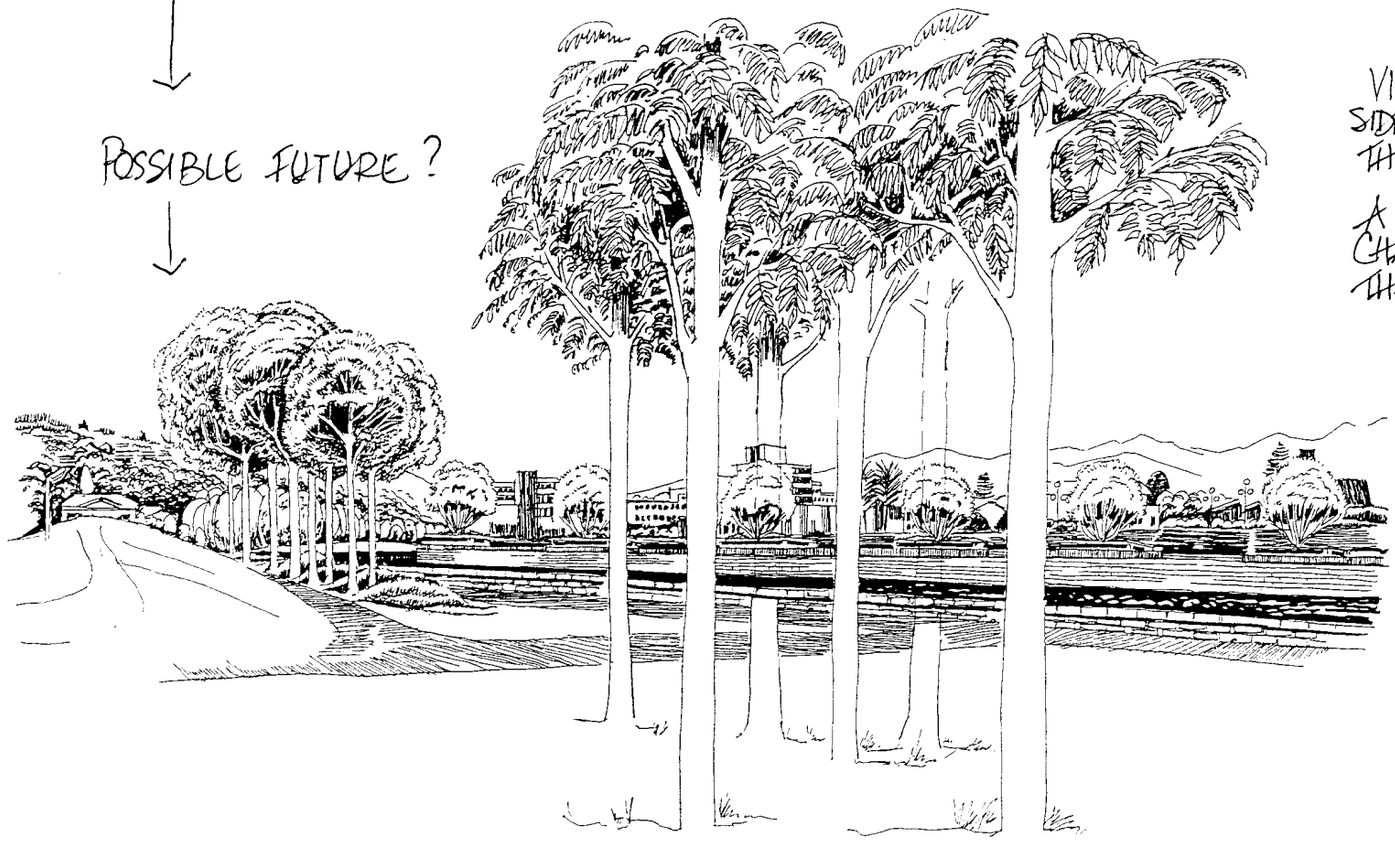
PRESENT



POSSIBLE FUTURE ?



VIEW FROM THE WESTERN SIDE OF THE RIVER INTO THE CBD.

A MORE 'FORMAL & PARKLIKE' CHARACTER WOULD BE APPROPRIATE THROUGH THE CBD.

Hutt River Environmental Strategy
Concept Sketches: Lower Hutt CBD

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February 2000

5.4 Avalon

Melling Bridge to junction of Harcourt Werry Drive and Taita Drive

Objective: enhance recreation experience with planting for screening and spatial variety, and improve visual connections to the river.

The river corridor is open and fairly bland with a "managed" character. The western escarpment dominates and the open sports fields on the western bank provide little buffering from urban areas. The road, which runs between the stopbank and the river, dominates much of the experience on the eastern bank. There are areas of successful planting screening the road, with some gently undulating landforms on the berms. Stretches of dense willow plantings block visual connections with the river. The willows are punctuated by road-sized openings giving access to the water. There are some opportunities to walk through the willows. Both banks are well used for public recreation, with organised sport occurring on the eastern bank and walking on the western bank. There are several historic sites along the river in this area, including Maraenuka pa, a Maori river crossing point, Motutara pa, the site of the old Belmont railway station, fossil forest remains and an old groyne.

This reach is also important for recreation, with a wide variety of facilities including golf courses, sports fields, and dog obedience, pony, croquet, and tennis clubs. Belmont domain is well used by the local community for a variety of recreational and community activities. There are several rafting entry/exit points along the river.
There is also an underpass beneath State Highway 2 linking the river with the communities on the western hills.

Encroachment by private landowners has restricted access along the western bank at Belmont.

There are numerous opportunities through this reach to improve the river berms both visually and for informal recreation.

Key Proposals:

- ***On both berms, screen roads with further blocks of eco-sourced native planting, while recognising that it is important to maintain open stretches for visual access, and create special interest areas adjacent to access tracks.***

- ***On the eastern bank, use planting to improve spaces linked to access points along the river. Improve visual connection to the river with gaps in the vegetation and by pruning willows. Rationalise vehicle access.***

- ***On the western bank, improve visual and physical access to the river with gaps in willow plantings and pruning.***

5.5 Taita

From the junction of Harcourt-Werry Drive and Taita Drive to Pomare Railbridge

Objective: enhance the eastern bank as in important local community recreation space.

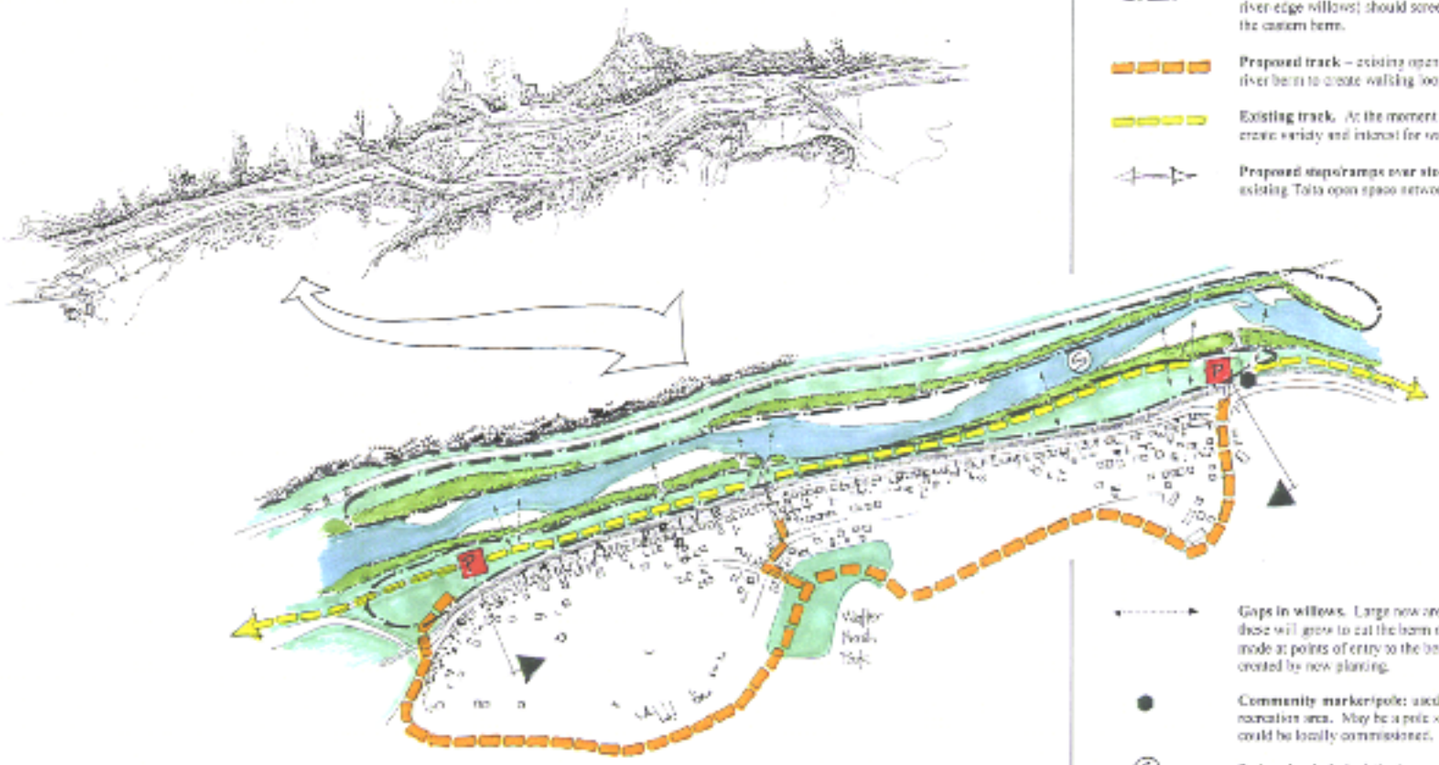
Here the river corridor is monotonous, linear and bleak, dominated by the stopbank. Planting is sparse, and essentially limited to the river edge. The quarry on the western escarpment is visually intrusive. The stopbank and road cut off the local community from the river. However, the swimming hole and adjacent beach on the eastern bank are well used. There are very few facilities or features of value within this reach at present. A paint-balling operation is using the waste ground downstream of Pomare Railbridge, although there are plans for this land to be used for cleanfill.

There is an old unnamed pa site in the vicinity of the river.

Key Proposals:

- ***Improve the visual character of the eastern bank with eco-sourced native planting to provide variety and better spaces.***
- ***Improve visual connections with the river by providing gaps in the willow plantings or by pruning.***
- ***Improve connections between the local community and the river with the creation of walking loops incorporating the river berm and the existing open spaces within the Taita community.***
- ***Control vehicle access to the eastern berm.***
- ***Strategically plant the western bank as a backdrop for recreation on the eastern bank. Views from the motorway should be maintained.***

> ***Key site:*** *in the Taita/Pomare area the river corridor becomes important as a recreation space for the local community. This area has a good swimming hole, and is well used. However, the area is bland and is not well connected to the immediately adjacent community.*



Legend

Area for proposed group and specimen tree planting. Emphasis on using planting to create picnic/sitting spaces on the berm, and provide interest to the berm track.

West Bank. This area is not as intensively used for recreation as the east berm, but has importance as a backdrop to recreation on the east berm. Strategic planting (including river edge willows) should screen the road from the most popular river access points on the eastern berm.

Proposed track – existing open space network enhanced with planting and linked to the river berm to create walking loops

Existing track. At the moment the track is straight and unvaried. Use new planting to create variety and interest for walkers on the track.

Proposed steps/ramps over stop-bank: linking through to Walter Nash Park and existing Taita open space network

Gaps in willows. Large new areas of willows have recently been planted. Eventually these will grow to cut the berm off from the river. Gaps (eg of 10m width) should be made at points of entry to the berm from the road, and near sitting spaces on the berm created by new planting.

Community marker/pole: used to mark the main entrance to this local community recreation area. May be a pole similar to that installed by HCC at the river mouth, could be locally commissioned.

Swimming hole (existing)

Car-park (existing).

Vehicle not permitted between these points

Willows (existing)

- Planting
- Improved recreation spaces and walks
- Improved community connections

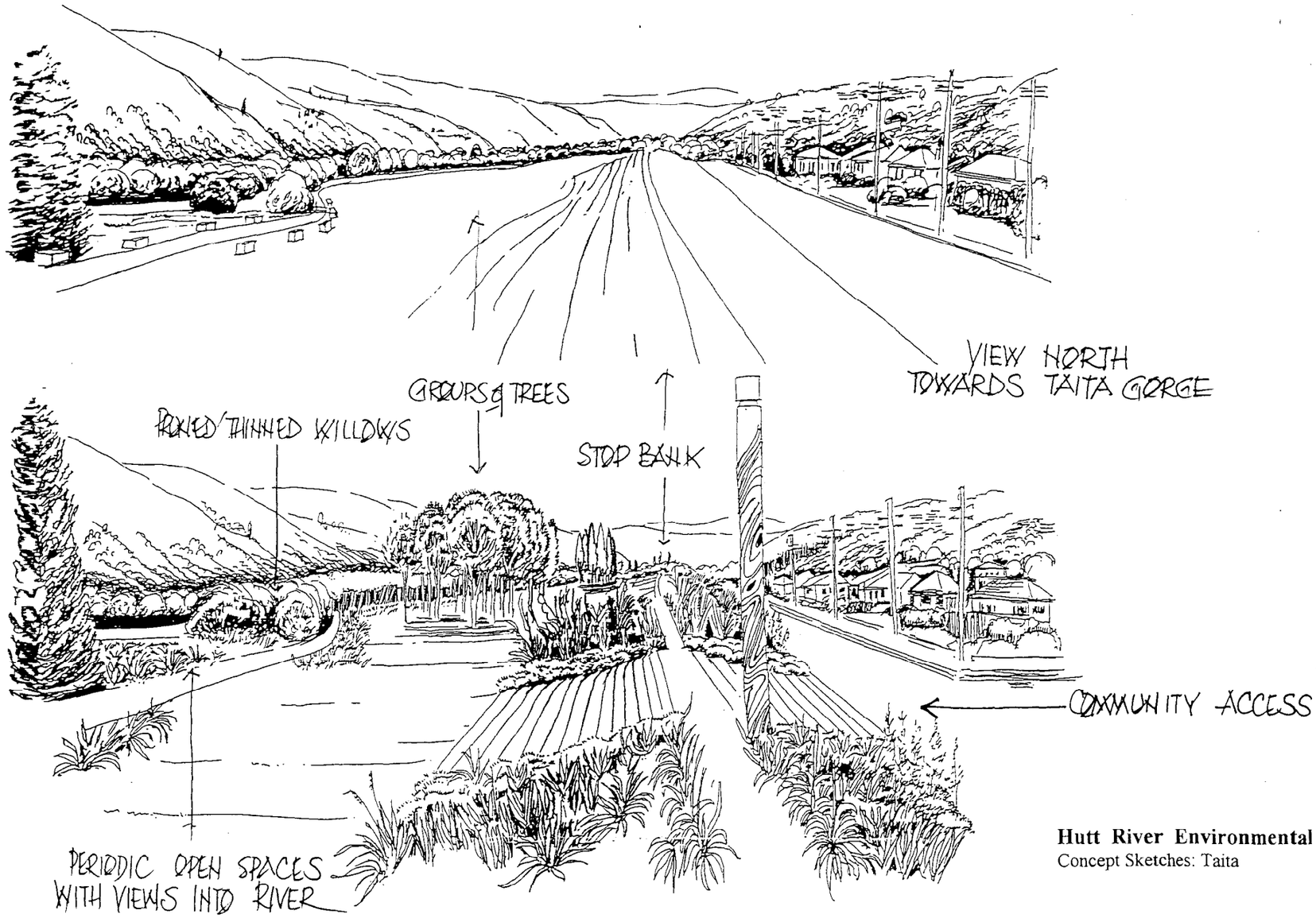
Hutt River Environmental Strategy

Concept Plans : Taita

Scale : Approx 1:5000 @ A1
(Main plan) Approx 1:10,000 @ A3

Plans prepared for the Wellington Regional Council by Ross Armstrong and Clive Anstey, Consultant Landscape Architects

February 2001



Hutt River Environmental Strategy

Concept Sketches: Taita

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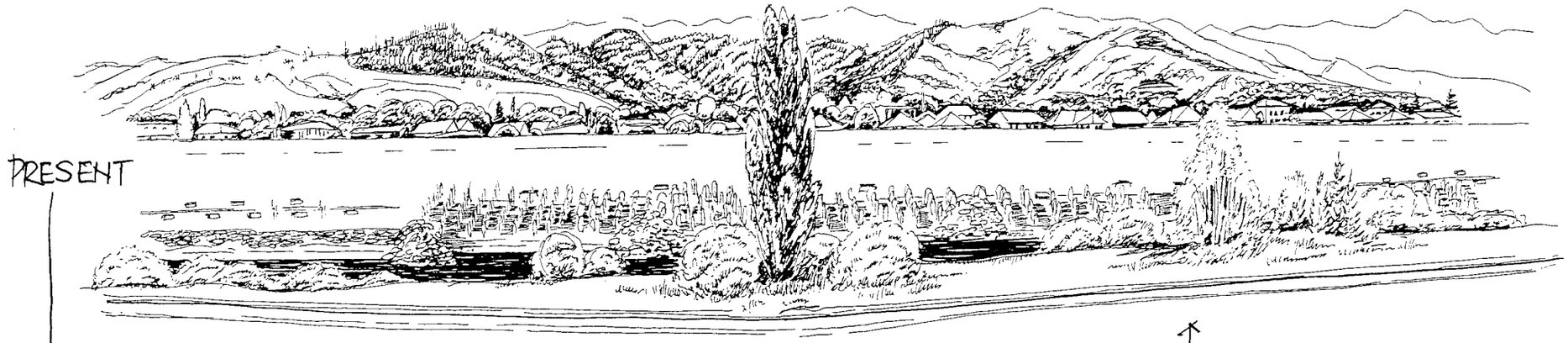
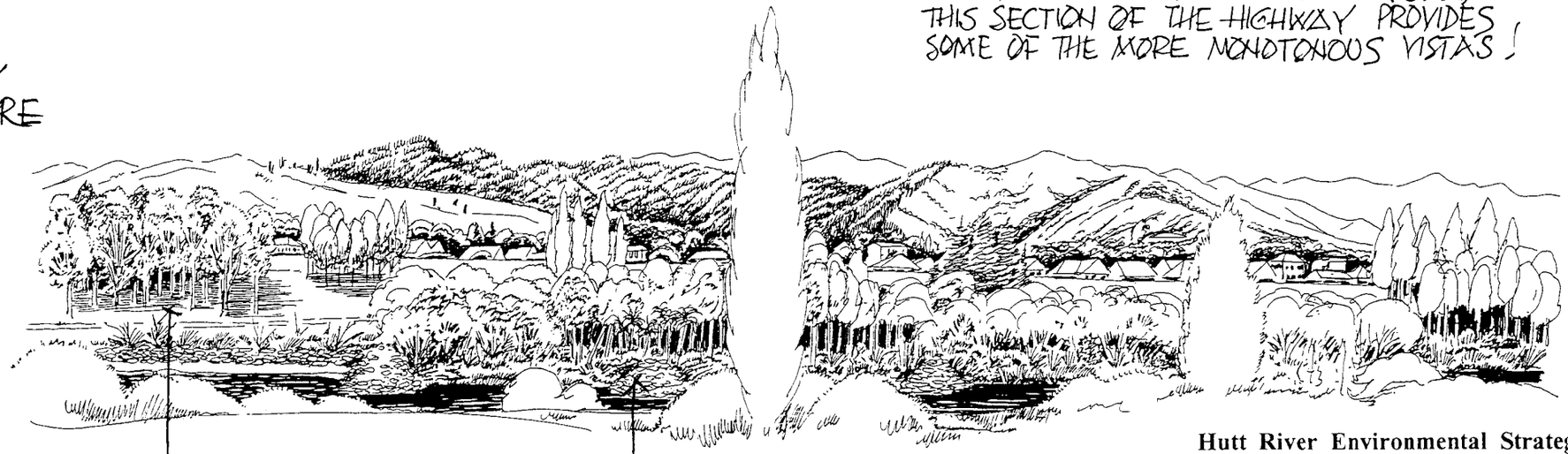


PRESENT

A VIEW FROM THE WESTERN HUTT RD (SH2) THIS SECTION OF THE HIGHWAY PROVIDES SOME OF THE MORE MONOTONOUS VISTAS!

FUTURE



SUBSTANTIAL PLANTINGS ALONG THE RIVER BERM

THINNED & PRUNED WILLOWS WITH NATIVES UNDERNEATH

Hutt River Environmental Strategy

Concept Sketches: Taita

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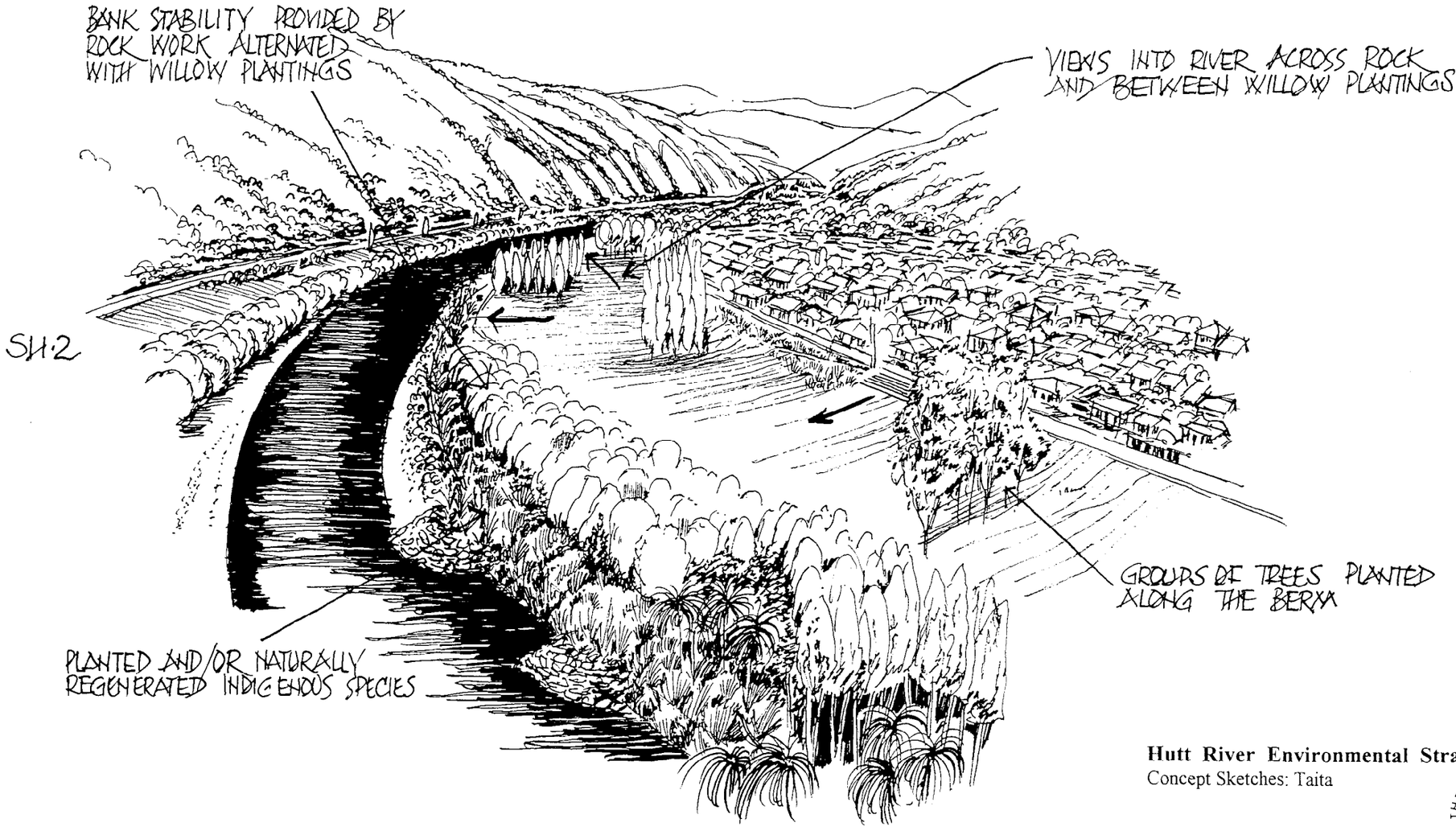

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Concept Sketches: Taita

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5.6 Taita Gorge

Pomare Railbridge to Silverstream Railbridge

Objective: habitat restoration, strengthen the existing recreation spaces, improve river access, and improve access links with downstream.

The river is confined by a gorge once again. The experience of the river corridor is characterised by variety; there are interesting changes in topography, planting and spaces. Towards Silverstream there are a series of smaller-scale, intimate spaces among mature willows and a strong sense of seclusion. Manor Park Golf Course provides the main recreational focus through this reach. The old tree nursery by the river crossing is popular for dog walking and picnicking.

At one spot, the Hutt River Trail is badly connected and is almost dangerous. It is necessary to cross the very busy Eastern Hutt Road and back again to follow the trail along the river.

The proposed excess flow wastewater storage facility for UHCC and HCC is planned for the quarantine station land immediately downstream of Silverstream Railbridge.

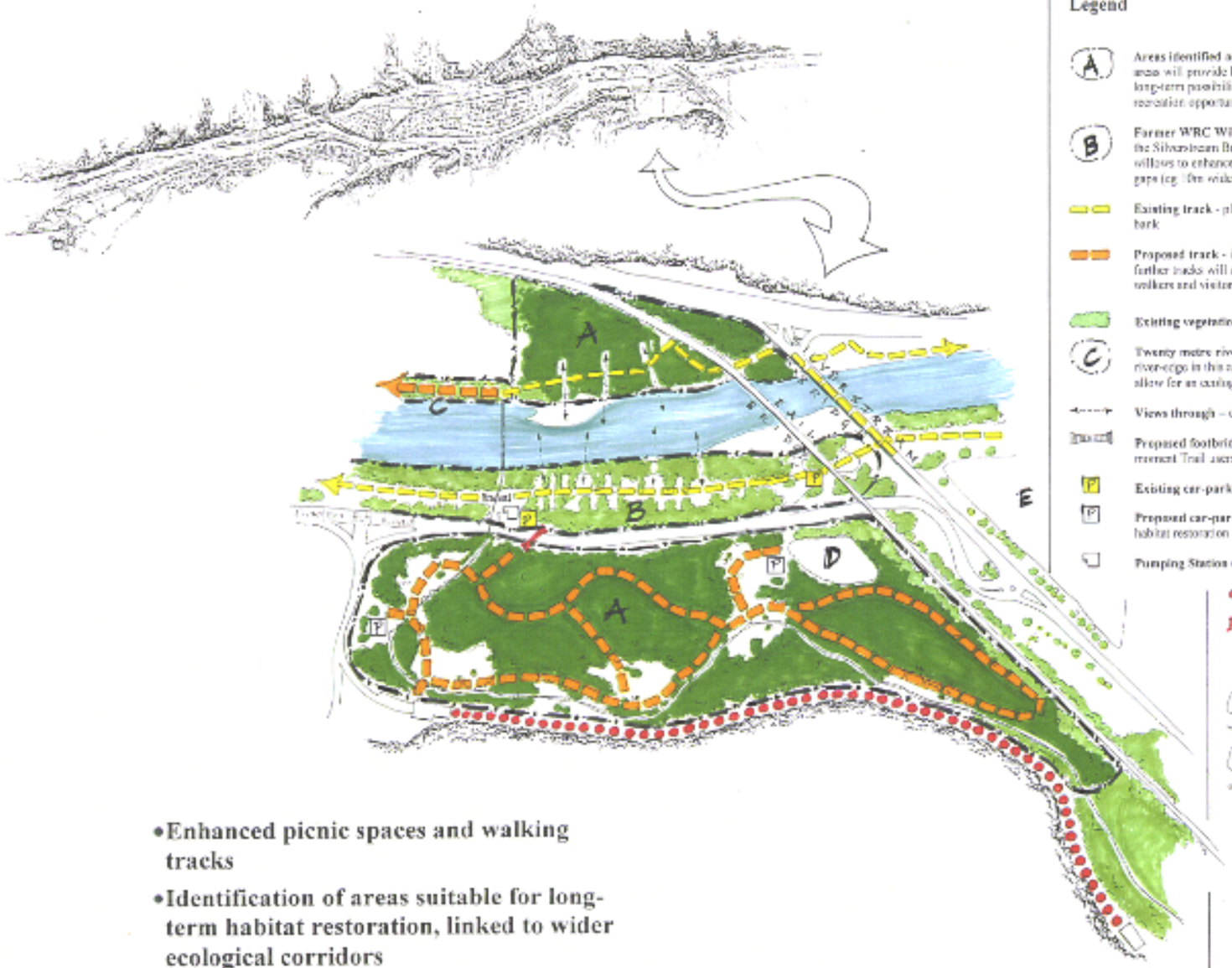
The Silverstream area is the only place within the Hutt Valley where there is an opportunity to create an ecological corridor across the floodplain linking the western and eastern hills.

Key Proposals:

- ***Actively manage the mature willows in the former nursery area to enhance picnic spaces.***
- ***Improve recreation links to the south including a new footbridge across Hull's Creek.***
- ***Plant eco-sourced native vegetation to screen the recreation trail from the road on the eastern bank.***
- ***Recognise the long-term potential for large-scale habitat restoration in this area by creating ecological corridors linking the adjacent hills and areas to the north. This may require land acquisition.***
- ***Recognise the potential for enhanced recreation in association with habitat restoration proposals.***

Key site: *the site of the former willow nursery is an area with a strong character, quite different to the rest of the river. Much more could be made of this site for recreation, with improved picnicking spaces, and improved track links to the south.*

There are also long-term opportunities to create some quite large-scale ecological links around this area, possibly connecting through to Barton's Bush, and linking both sides of the river to the surrounding hills. Land acquisition may be required to achieve that potential.



Legend

A — **Areas identified as desirable for habitat restoration.** Native plantings in these areas will provide links in the larger ecological corridor identified in this plan as a long-term possibility. Associated recreation tracks and spaces will extend existing recreation opportunities. Land ownership issues apply.

B — **Former WRC Willow nursery** - with existing picnic spaces extending to below the Silverstream Bridges. Proposed active management of existing mature willows to enhance picnic spaces: creation of tracks through willows to river edge, gaps (eg 'fire walk') made through willows for river views.

Existing track - planting to screen recreation trail from the road on the eastern bank

Proposed track - in association with proposed long-term habitat restoration areas, further tracks will extend recreation opportunities for the picnickers, horse-riders, walkers and visitors to the historic railway, who frequent this area already.

Existing vegetation

C — **Twenty metre river-edge vegetation strip** - identified by WRC as ideal river-edge in this area. Back 5 metres proposed as native plantings to allow for an ecological corridor.

Views through – creating connections with the river.

Proposed footbridge – over Hull's Creek to link Hutt River Trail. At the moment Trail users must cross the main road at this point.

P — **Existing car-parking areas**

P — **Proposed car-parking areas** – in association with proposed long-term habitat restoration area.

Pumping Station (existing)

Historic railway (existing)

Proposed Underpass - extensive use of the area and traffic volumes may warrant linking recreation spaces with an underpass similar to those at Belmont Domain

D — **Site of proposed water storage tanks**

Stream

E — **Horse Riding for the Disabled** – existing use

Pipe - existing

- **Enhanced picnic spaces and walking tracks**
- **Identification of areas suitable for long-term habitat restoration, linked to wider ecological corridors**

Hutt River Environmental Strategy

Concept Plans : Silverstream Bridges

Scale : Approx 1:2500 @ A1
(Main plan) Approx 1:5000 @ A3

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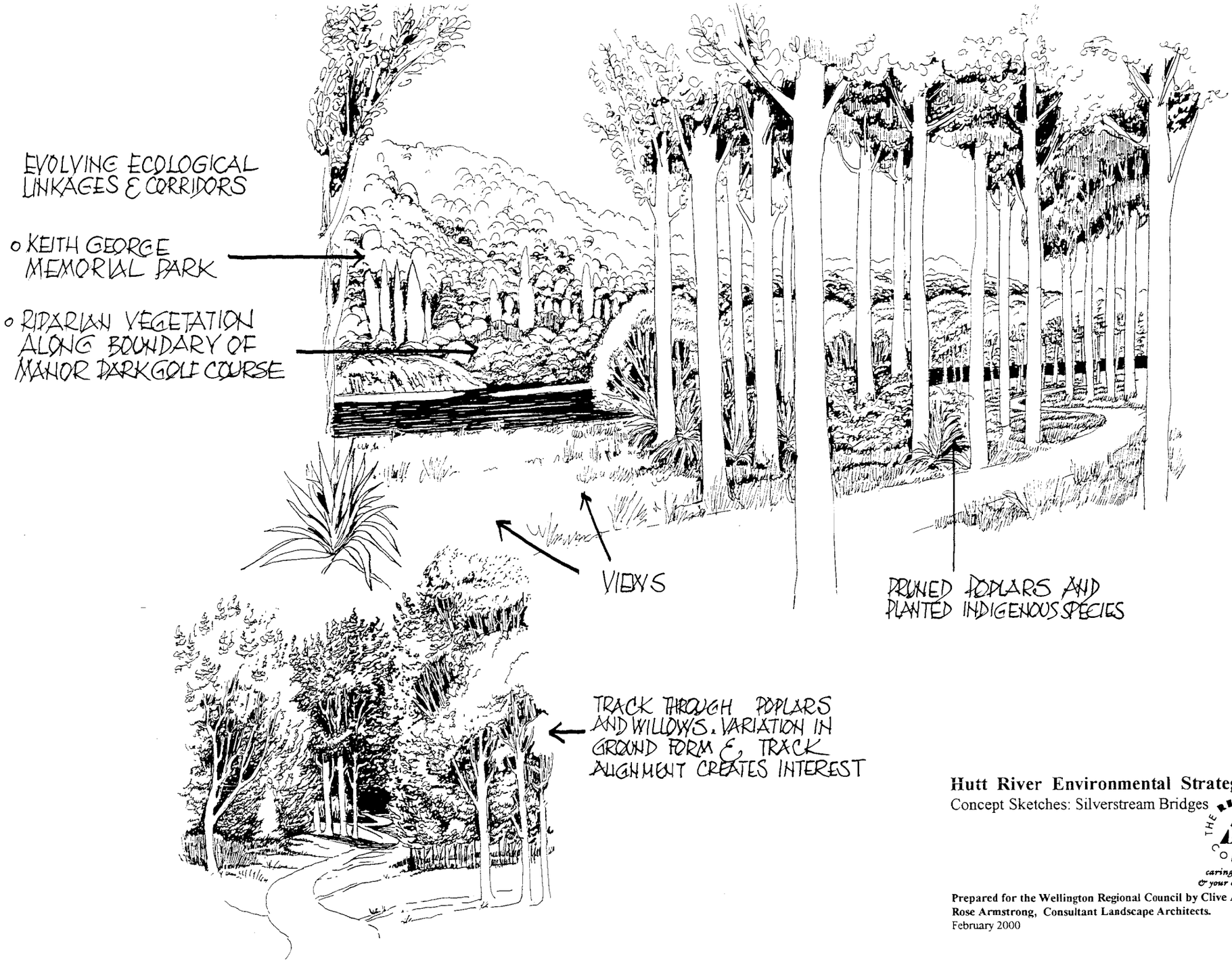
Plans prepared for the Wellington Regional Council by Rose Armstrong and Clive Anstey, Consultant Landscape Architects

February 2000



Hutt River Environmental Strategy

Concept Sketches: Silverstream Bridges

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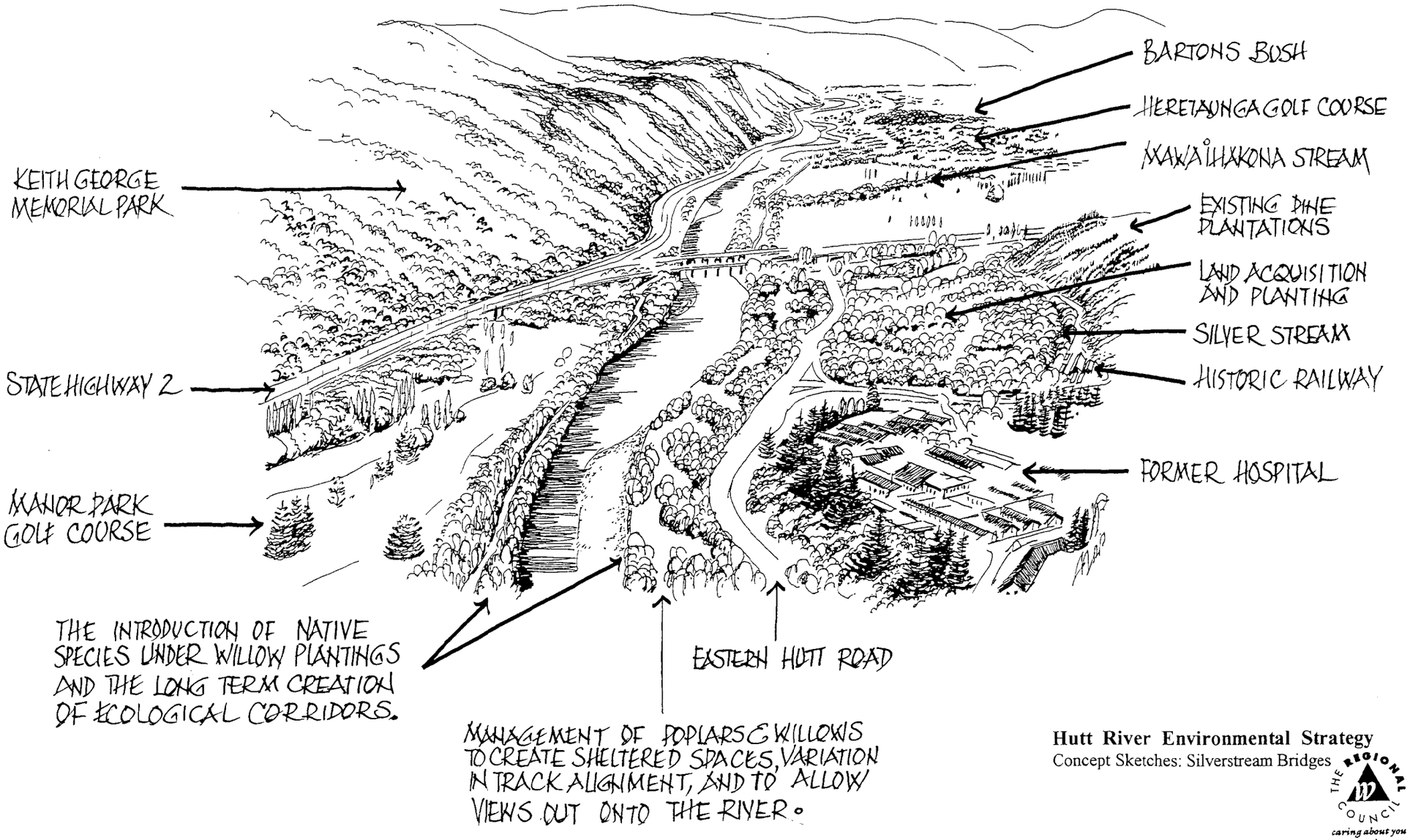

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Concept Sketches: Silverstream Bridges

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5.7 Heretaunga

Silverstream Road Bridge to Trentham Memorial Park

Objective: maintain and further enhance the orientation with the river and secluded nature of the access tracks.

The eastern bank has a strong sense of enclosure, seclusion and orientation toward the river due to the narrow strip adjacent to the river being edged with a high fence, and being buffered from urban areas by the golf course. The height of the western escarpment adds to the feeling of enclosure and orientation to the river. The track along the eastern bank is extremely popular, particularly for horse riding. The open space on the eastern bank contributes to a scenic experience of the river corridor for motorists on the State Highway. There are a few recreational facilities along this reach of the river, with the Riding for the Disabled School, the golf driving range and putting course, and the Wellington Golf Course. Fly-fishing is popular along this reach.

Barton's Bush is a regionally representative tawa/podocarp forest, the only remaining example of river terrace forest in the Wellington region. It has a diverse and notable fauna, and contains Black Maire. Barton's Bush needs further native planting and access restrictions, if it is to survive.

Key Proposals:

- ***Maintain or increase planting to buffer the river corridor from urban development on the eastern bank (particularly in the area affected by the proposed Valley Plaza (formerly the ProMall) development proposal).***
- ***Increase opportunities to view the river from the eastern bank.***
- ***Where the river is visible from the eastern bank, the western bank becomes important as a backdrop. Plant the western bank as a backdrop to river access points on the eastern bank.***
- ***Continue current exclusion of vehicles.***
- ***Investigate the feasibility of flooding Barton's Bush.***

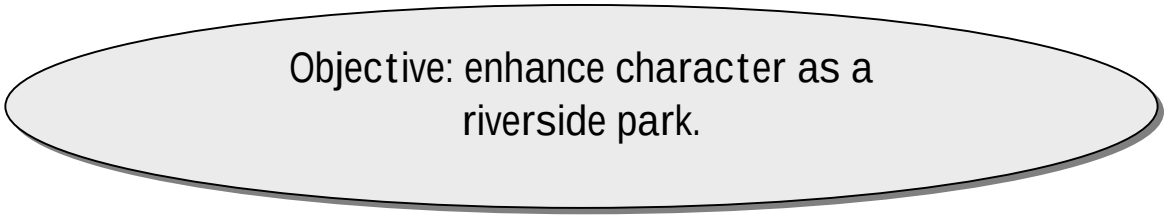
There are some good opportunities in this and the Taita Gorge area (see section **5.6**) to create new fairly sizeable habitats, and linking them with Barton's Bush. These possibilities involve using open, flood-prone land, which is currently in private, or Crown ownership.

There will be a particular need for planting to screen the river corridor in the Heretaunga area should the proposed Valley Plaza (formerly the ProMall) development go ahead.

***Key site**: Potential opportunities exist to create wetland habitat and enhance riparian planting along Mawaihakona Stream, improving ecological links with the Hutt River. This area is currently identified for car parking in the Valley Plaza (ProMall) development plans. If the development does not proceed, or plans change, then the opportunity for wetland creation should be taken.*

5.8 Moonshine

Moonshine Park to upstream of the Whakatikei River confluence



This area of the river has a strong "managed" character, but the bush-covered western escarpment, with dramatic rock outcrops and mature trees (remnant totara) on the eastern bank give a sense of naturalness and seclusion. Existing planting creates large areas of interest and variety. This is an important area for recreation, with a series of accessible and intensively used spaces along the river. A pony club uses land adjacent to Moonshine Park, and several sports clubs including rugby, BMX, bowls and croquet have facilities in this area. There are also several well used swimming holes. Currently, motorised vehicles have access to the river beaches at several points. However, when vehicles become the dominant feature of an area, this may interfere with the "natural" experience of the river environment.

Upstream of the Whakatikei River is the site of "McCurdy's Castle". McCurdy was a well-known local figure who was involved in politics of Upper Hutt for many years. He also opened the first cinema in Upper Hutt and lived in a large house next to the Whakatikei. There used to be a swing bridge across the Whakatikei at this point.

Key Proposals:

- ***Redevelop the existing recreational focal point at the Whakatikei River confluence (needs to be able to cope with intensive use).***
- ***Control vehicle access.***
- ***Improve visual connections with the river.***

> ***Key site****: this is another popular recreation focal point along the river, with good access to the river, a swimming hole, large established trees and plenty of room for car parking. The site has a lot of potential, with extensive opportunities for planting.*

Legend

A Poet's Park – proposed planting of further specimen trees, in groups to create shaded picnic areas near the existing access-point to the river, and to provide screening from the road. Current vehicle access to river-edge remaining.

B **Specimen tree planting** – to screen recreation track/road from the motorway.

Visual connections through willows to the river – will help this stretch of road/track to become part of the recreation experience of this area, rather than just being a functional means of getting between Poet's Park and Whakatikei swimming hole. Visual connections could be achieved in a variety of ways (see Concept Statement).

C **Rehabilitation of former shingle plant** – with extensive planting of native trees and shrubs. This will provide Whakatikei swimming hole with a native bush-backdrop, and enhance the "natural" character and seclusion of the swimming hole while screening it from the motorway. Site to include areas for parking, with views out under trees to picnicking spaces near river.

D **Existing picnic area under trees**; informal vehicle parking on grass. Proposed vehicle access from former shingle site, as well as current access road. Proposed to confine motor vehicles to this and the former shingle plant areas, with motor vehicles not permitted on the river-beach, or any further north on the berm.

E **River area** – picnicking, water/river-beach access. Motor vehicles not permitted in this area.

Proposed track through willows

Existing vegetation

Existing track/road (vehicle access to remain between Poet's Park and Whakatikei River)

Proposed track

- **Extensive planting**
- **Rationalisation of motor vehicle access at Whakatikei swimming hole**
- **Enhanced recreation spaces and tracks**

Hutt River Environmental Strategy

Concept Plans : Whakatikei

Scale : Approx 1:2500 @ A1
(Main plan) Approx 1:5000 @ A3

N

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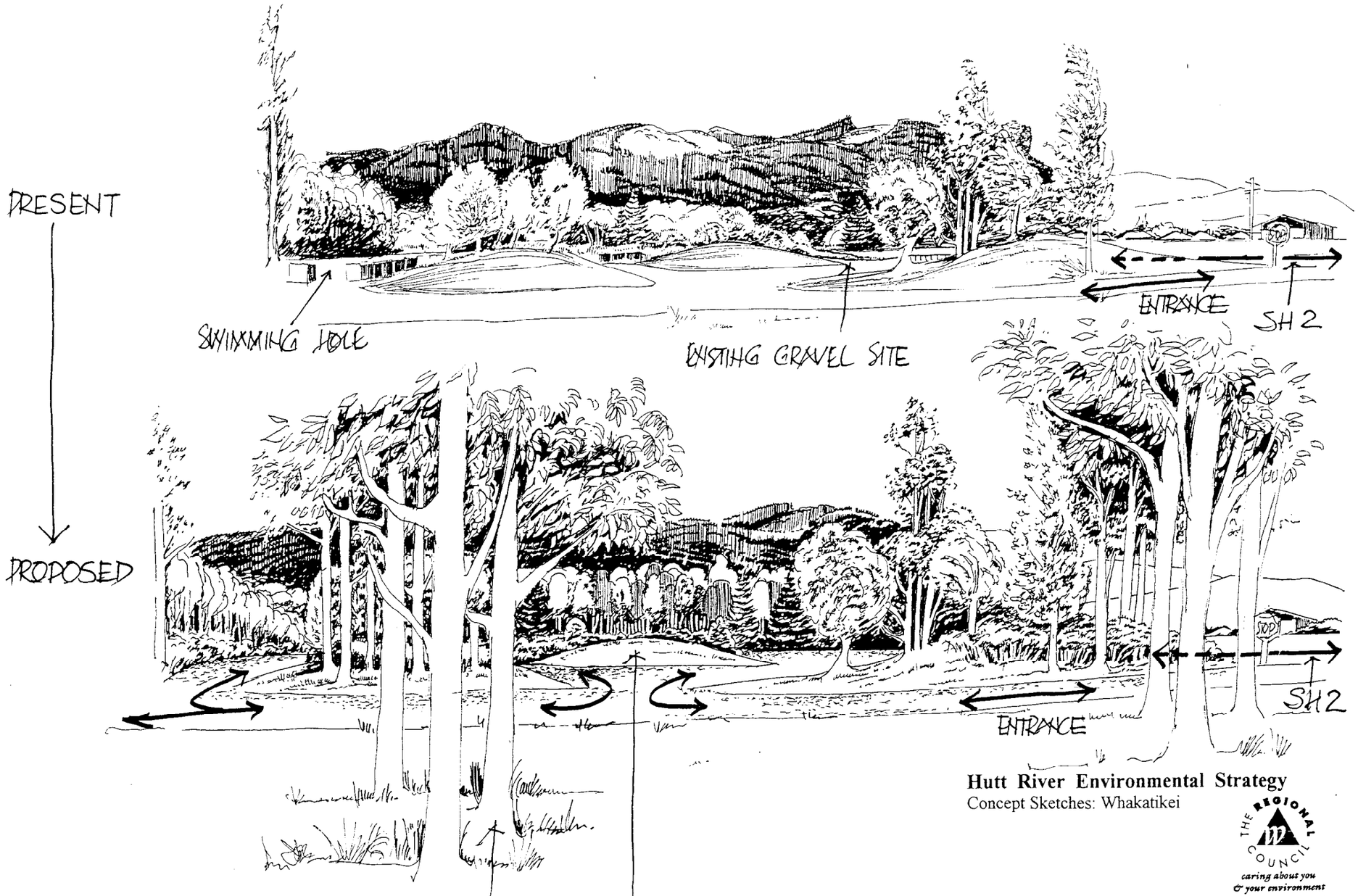
February 2000



GROUP PLANTINGS IN ASSOCIATION WITH CARPARKING AREAS AND ALONG THE BERM TO SOUTH OF WHAKATIKEI SITE

Hutt River Environmental Strategy

Concept Sketches: Whakatikei

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Concept Sketches: Whakatikei

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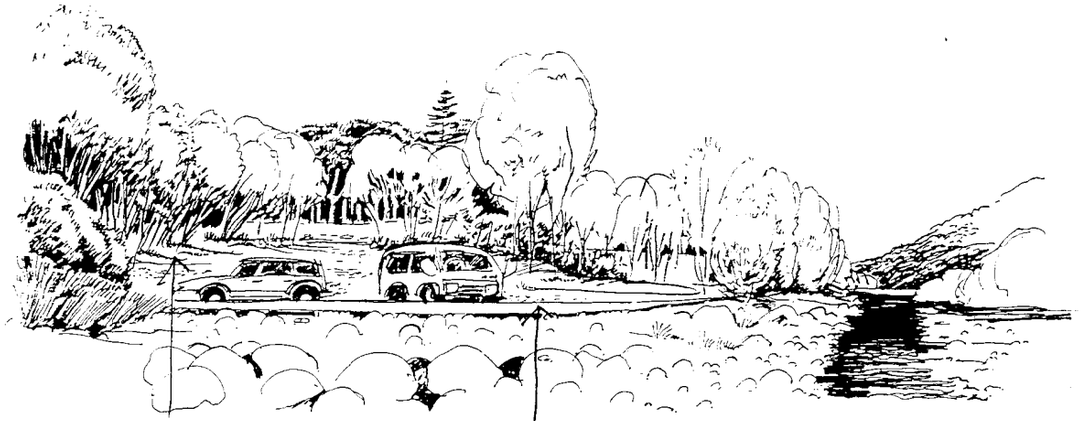

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Concept Sketches: Whakatikei

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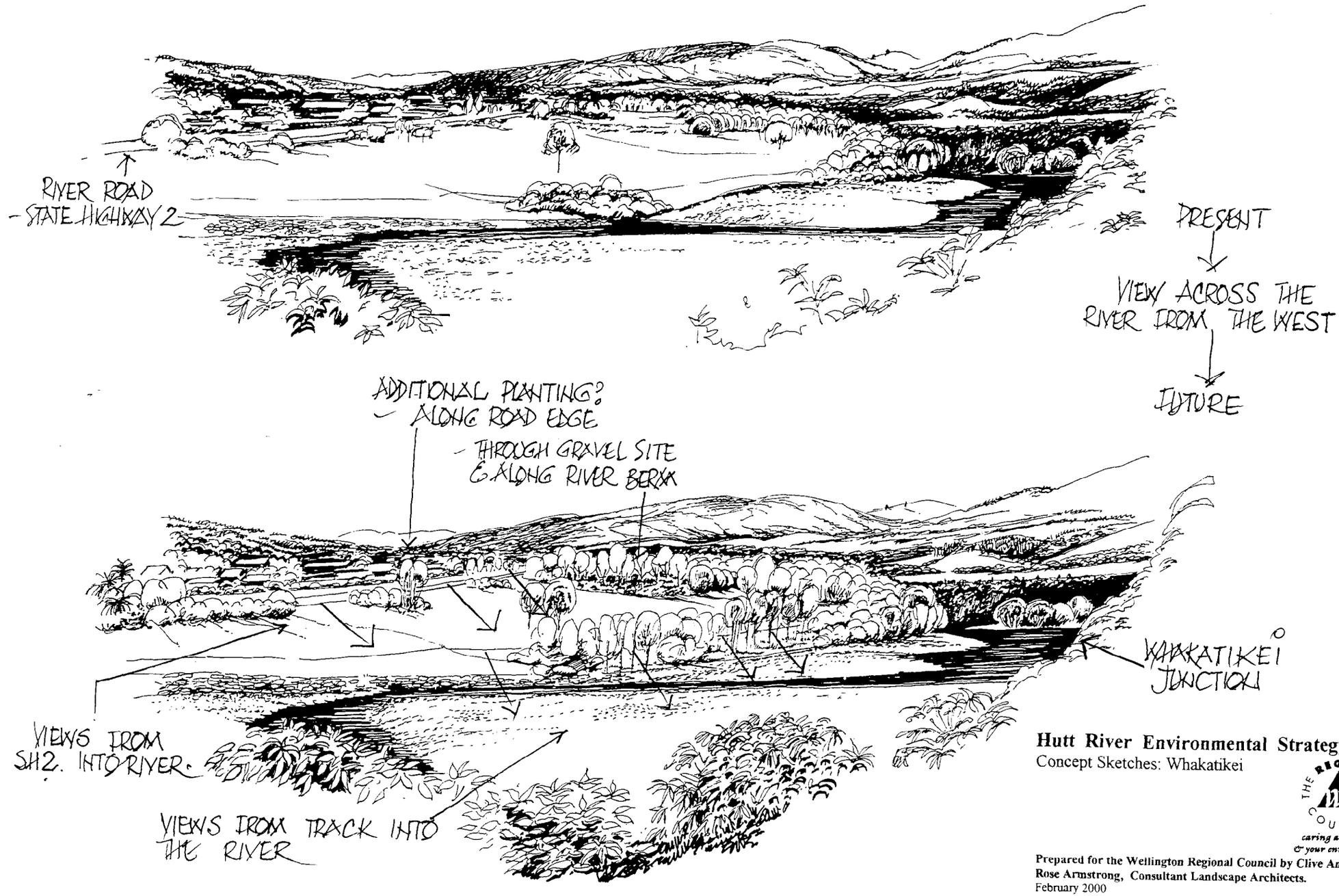

Hutt River Environmental Strategy

Concept Sketches: Whakatikei

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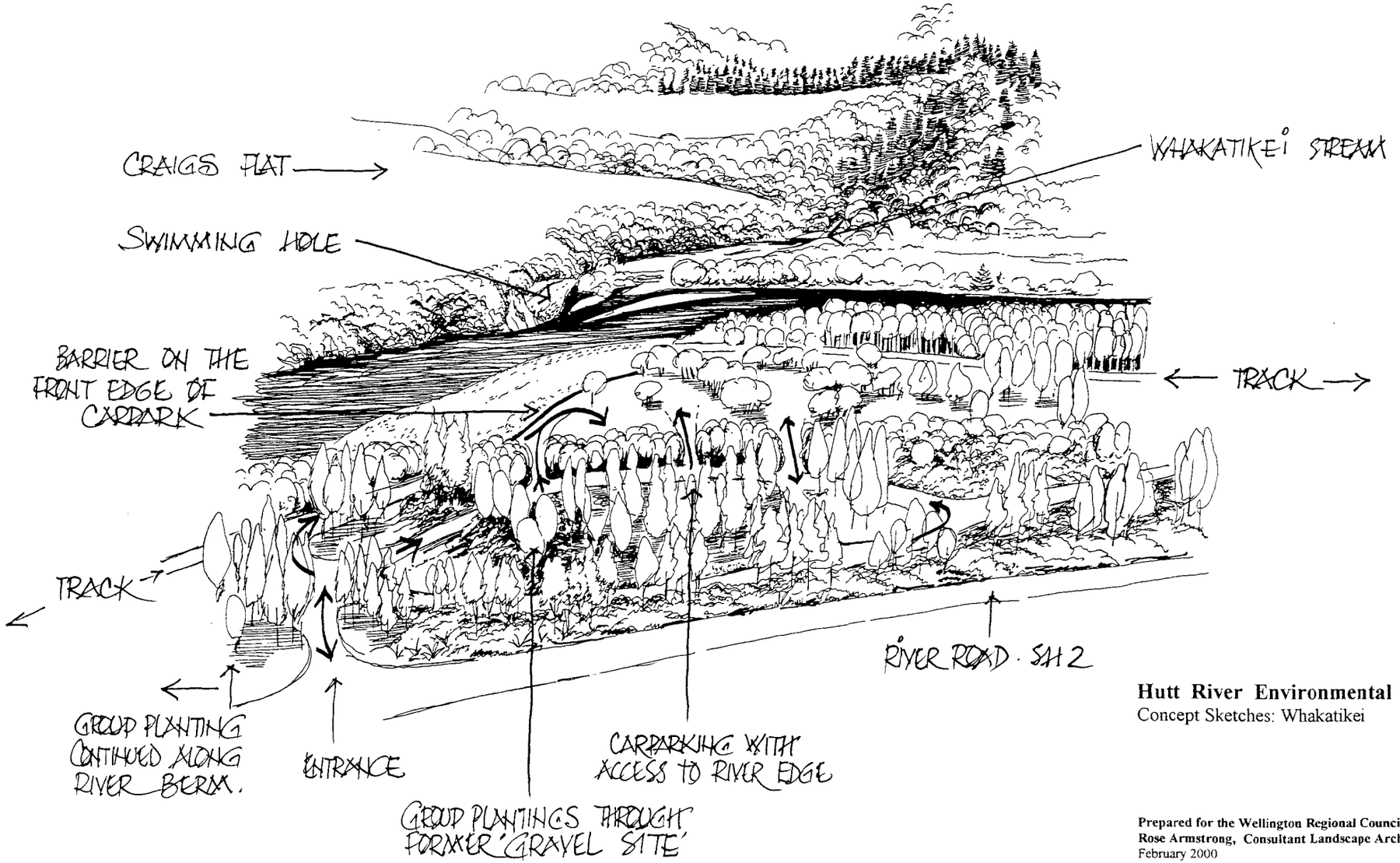

Hutt River Environmental Strategy

Concept Sketches: Whakatikei

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5.9 Totara Park

Upstream of the Whakatikei River confluence to downstream of Maoribank corner

Objective: large scale indigenous habitat restoration with associated access tracks.

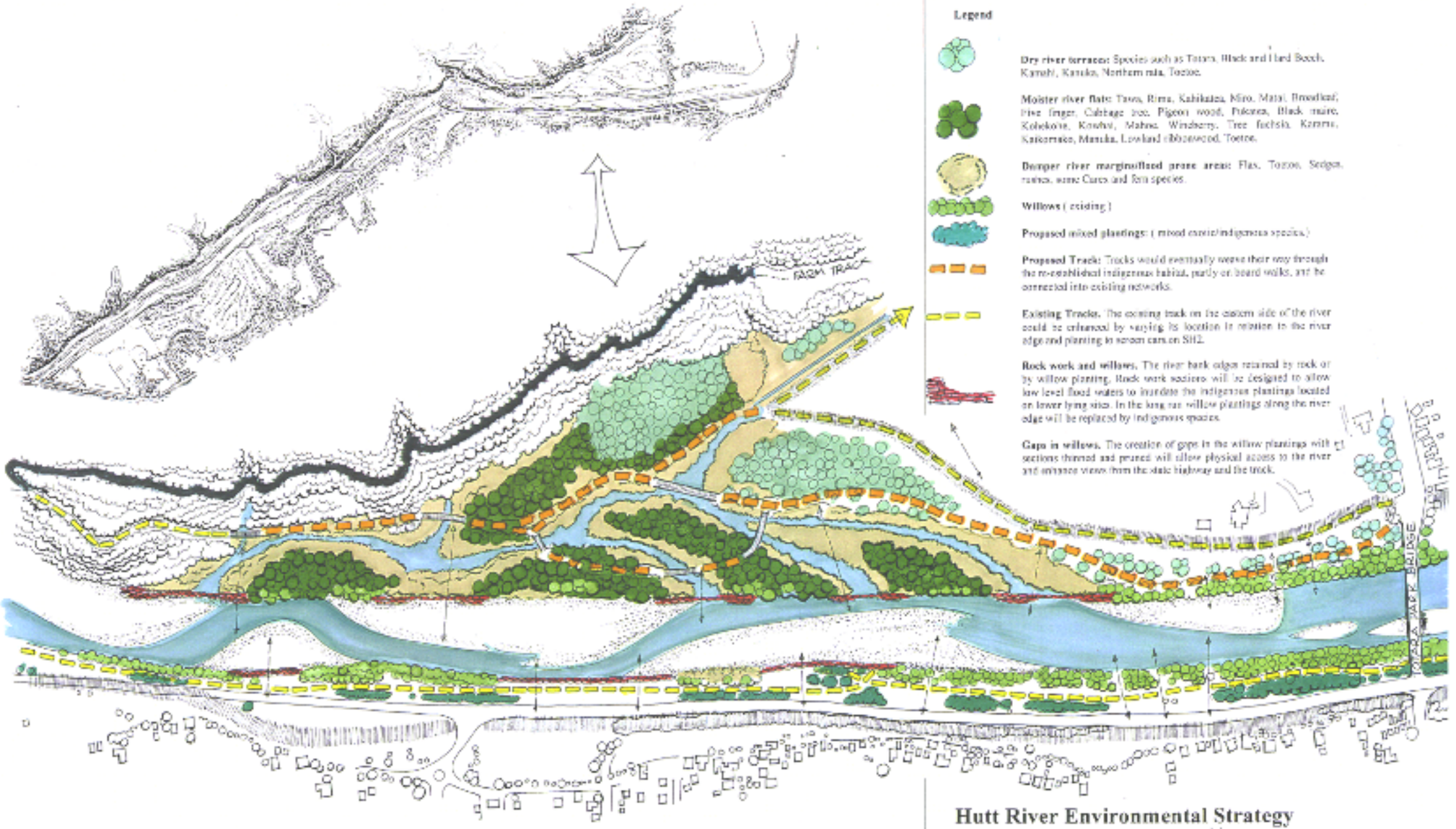
This section of the river corridor is expansive and fairly bland. It is characterised by large open areas of mown grass, and is dominated by the road and traffic. The western bank is used for horse grazing. There are several walking tracks on the west bank that give access to the western Hills.

Key Proposals:

- ***Create a wetland and native bush areas on the western bank downstream of Totara Park.***
- ***Rock line sections of the western bank to give views into the wetland and bush areas from the State Highway.***
- ***Screen the State Highway from the access tracks on the eastern bank with eco-sourced native planting, while still maintaining views from the road to the new habitat area.***
- ***Enhance the existing sports fields with groups of specimen trees (totara and beech).***

Key site: *This site is one of the few remaining large open areas along the river in public ownership where there is an opportunity to emphasise the ecology and large-scale habitat restoration. The site has potential for developing of both native bush and wetland areas, and is well connected to the river, as there is no stopbank between the river and this site. It is also an area where significant flood protection works are planned.*

In the long-term, it would be desirable to see the proposed new wetlands and native vegetation across the river from the State Highway. This would not be possible with the current planned willow buffer. It is recommended in the long-term that rock rip-rap be used for this area assuming the proposed habitat restoration area becomes well-established and valued by the community, which would give the mandate for a stronger form of bank edge protection to be used.



Legend

Dry river terrace: Species such as Totara, Black and Hard Beech, Kamahi, Kanuka, Northern rata, Tootoe.

Moister river flats: Tawa, Rimu, Kahikatea, Miro, Matai, Broadleaf, Five finger, Cabbage tree, Pigeon wood, Pukatea, Black maire, Kohekohe, Kowhai, Mahoe, Wineberry, Tree fuchsia, Kamahi, Kaiwaiwai, Manuka, Lowland ribbonwood, Tootoe.

Damper river marginal/flood prone areas: Flax, Toetoe, Sedges, rushes, some Carex and fern species.

Willows (existing)

Proposed mixed plantings: (mixed exotic/indigenous species)

Proposed Track: Tracks would eventually weave their way through the re-established indigenous habitat, partly on board walks, and be connected into existing networks.

Existing Tracks. The existing track on the eastern side of the river could be enhanced by varying its location in relation to the river edge and planting to screen cars on SH2.

Rock work and willows. The river bank edges retained by rock or by willow planting. Rock work sections will be designed to allow low level flood waters to inundate the indigenous plantings located on lower lying sites. In the long run willow plantings along the river edge will be replaced by indigenous species.

Gaps in willows. The creation of gaps in the willow plantings with sections thinned and pruned will allow physical access to the river and entrance views from the state highway and the track.

- Re-establishment of Indigenous habitats
- Enhanced visual and recreational qualities
- Improved integration of the river environment

Hutt River Environmental Strategy

Concept Plans : Totara Park

Scale (Main plan) : Approx 1:2500 @ A1
Approx 1:5000 @ A3

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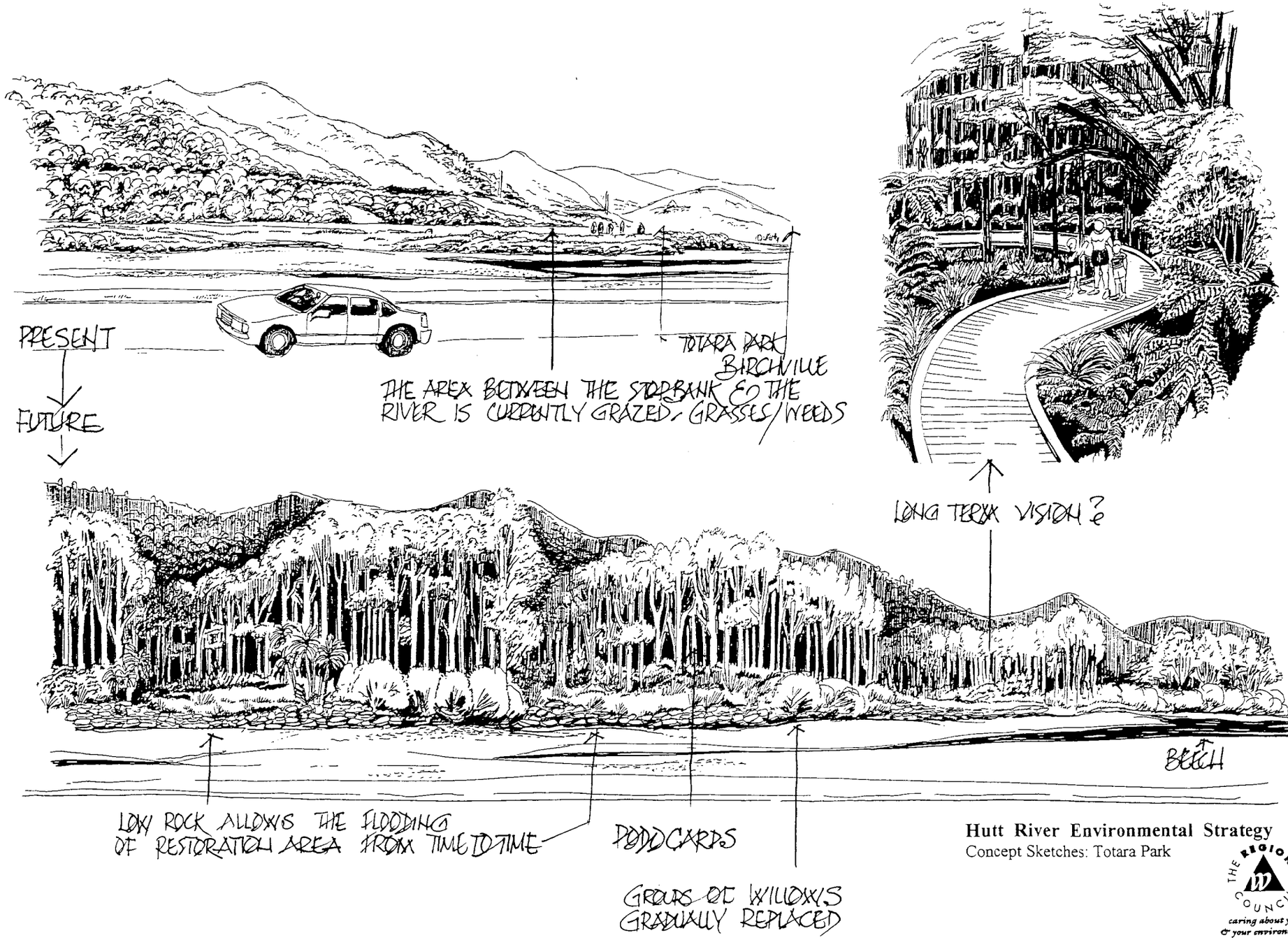
February 2003



Hutt River Environmental Strategy

Concept Sketches: Totara Park

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5.10 Maoribank

Maoribank corner to Harcourt Park

Objective: strengthen recreation emphasis, making use of and building on existing features; strengthen community connections with the river.

The river moves out from the enclosing hills and flows through large areas of public open space; some areas are interesting and well used, others are bland and undeveloped. This reach is very popular for recreation with several parks, for instance, Awa Kairangi Park, Ngati Tama Park, Harcourt Park and campground, California Park, and Te Hau-Karetu Park. There is also a good swimming hole. The canoe club has a slalom course in this reach. There are also clubrooms associated with football and rugby.

There are a variety of interesting natural features, including varied topography, remnant trees, rock outcrops, which are exposures of the Wellington fault, and natural pools. Residential communities are in close proximity to stopbanks and river. The river is confined between stopbanks.

There is a large area of native beech forest with rimu, rata, hinau and tawa close to the river at Cannon Point. It is a regionally representative remnant and supports a good bird population. There is also a small wetland area in Te Hau-Karetu Park.

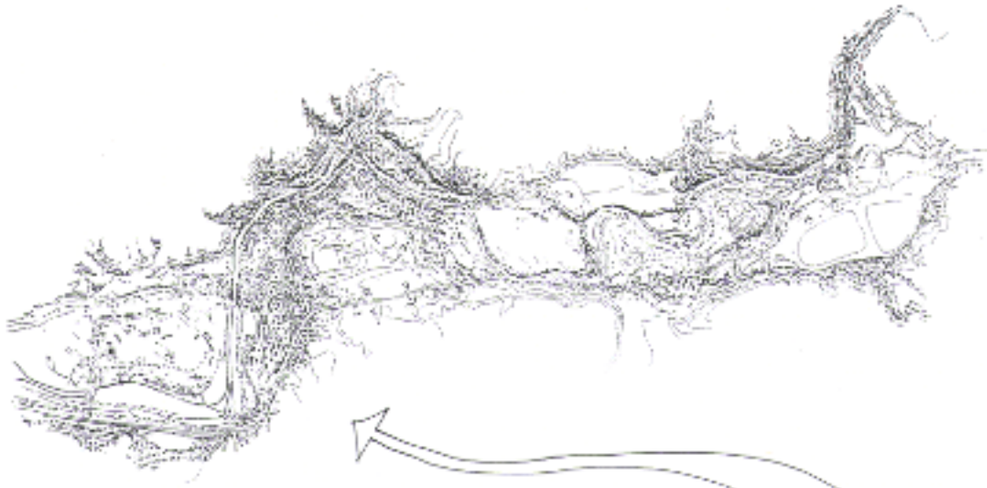
The bridge abutments of the historic Maoribank swing bridge are still evident at Maoribank corner, and the area has a rich cultural history, with gardens at Te Hau-Karetu on the west bank, and a pa site on the east bank.

Key Proposals:

- ***Replace former swing-bridge (pedestrians only) at Maoribank corner creating a loop walk with Harcourt Park.***
- ***Enhance Maoribank corner and the swimming hole as a second recreational focal point on the new loop track.***
- ***Plant eco-sourced species that strengthen the local identity, for example, totara (Totara Park) and beech (Birchville).***
- ***Create a community park between the swimming hole on Maoribank corner and the adjacent community.***

Key site: *This area is important as a recreation focal point for both the local and wider community. It is in close proximity to quite dense housing, and is already well used, with a lot of potential for improvement.*

The area proposed as a local community park is currently a "nothing" space. Development as a sportsfield is being considered. In the past this was unsuccessful because of waterlogging. One or two shallow ponds with associated wetlands could be developed in the space, along with other plantings including specimen trees. With walking tracks through the plantings, the area could provide a pleasant link for the local community down to the river. Ponds would also strengthen the relationship of the space to Te Hau-Karetu Park on the other side of the river, where there is already a small lake.



Legend

- **Area for proposed planting to create a small local community park** - with tracks leading to the local swimming-hole. One or two water bodies may be possible, with associated wetlands, mirroring Te Hau-Kareti Park on the other side of the river. Specimen trees and other native planting also proposed. The entrance to the new community park could be marked, eg. with a pole similar to the one installed by HCC at the rivermouth, or some piece commissioned locally.
- **Community Park entrance marker:** could be a pole similar to that installed by HCC at the river mouth, could be something commissioned locally.
- **Proposed water body/wetland**
- **Existing water body**
- **Proposed further planting** - including specimen trees, to strengthening existing drifts, create interest for the new loop track, and enhance the entrance to the car-park and swimming-hole.
- **Existing vegetation**
- **Proposed groups of specimen trees** - (high-headed types only) to enclose entrance to the swimming hole car-park and screen out near-by sports fields
- **River and swimming-hole** - river edges enhanced with native planting
- **Totara** - specimen tree to replace that lost several years ago
- **Proposed swing-bridge over river**
- **Existing track**
- **Proposed track**
- **Views through** – particularly important on the proposed loop track where new willows will grow to cut off the river visually and confine the track within a narrow corridor
- **Car Park** – existing. Enhanced with further planting
- **Stop-bank**

- **Replacement of former swing-bridge on the river-bend, creating a loop walk over the river**
- **Further planting at swimming- hole entrance, enhancing character as a "natural" spot separated from suburban areas**
- **New local community park**

Hutt River Environmental Strategy

Concept Plans : Maoribank

Scale (Main plan) : Approx 1:2500 @ A1, Approx 1:5000 @ A3

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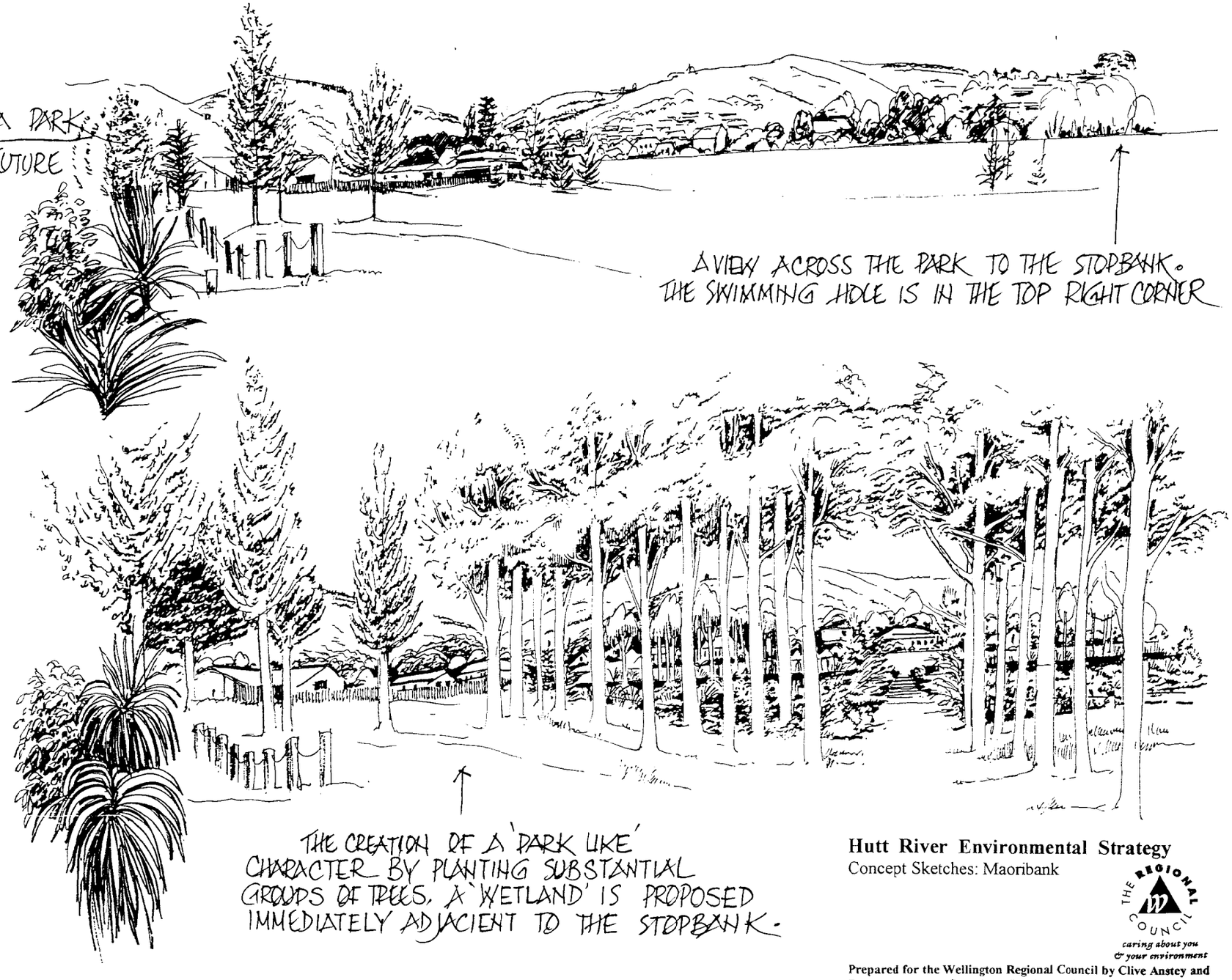
Plans prepared for the Wellington Regional Council by Rose Armstrong and Clive Anstey, Consultant Landscape Architects

February 2010

NGATI TAMA PARK
A POSSIBLE FUTURE



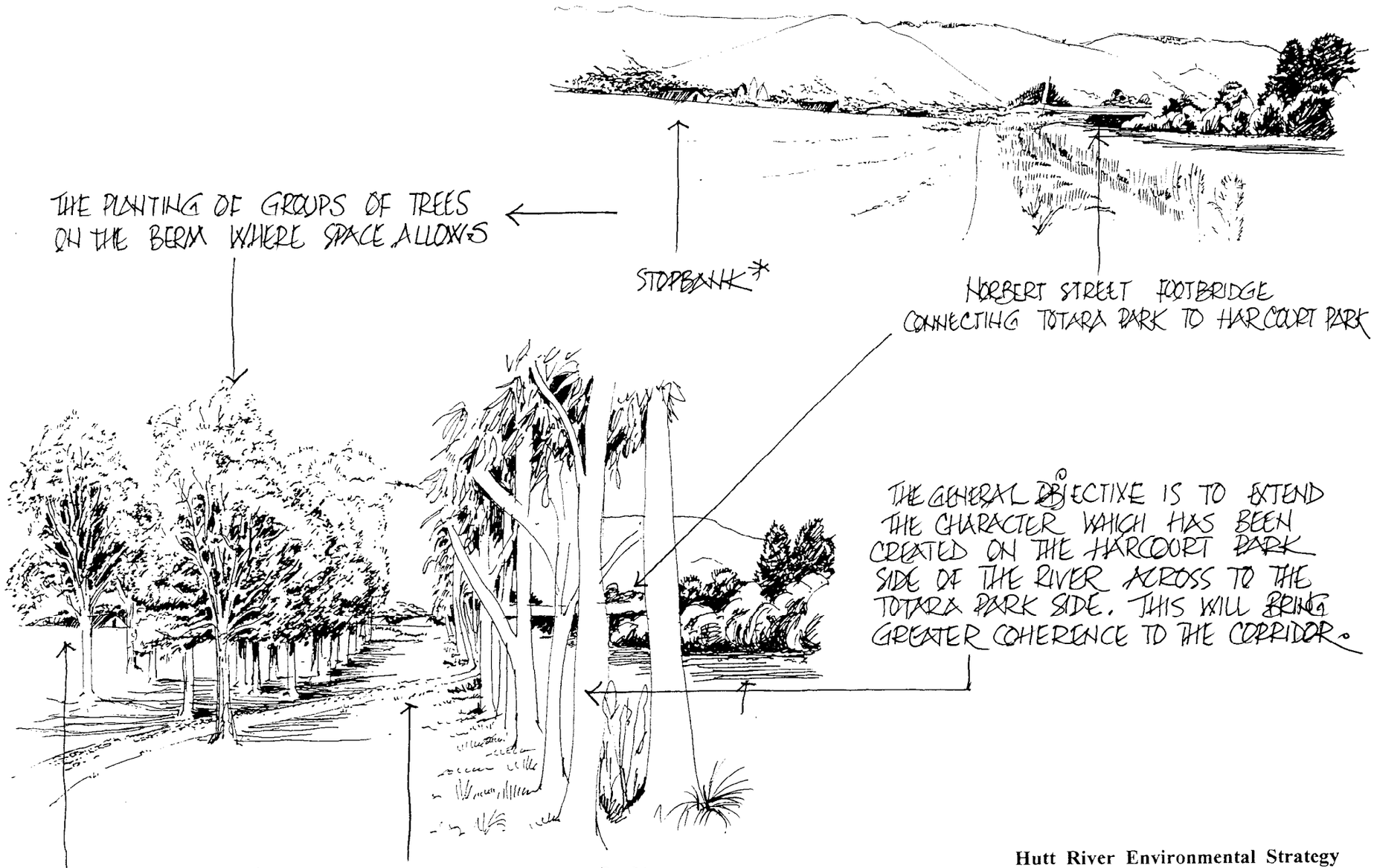
A VIEW ACROSS THE PARK TO THE STOPBANK.
THE SWIMMING HOLE IS IN THE TOP RIGHT CORNER

THE CREATION OF A 'PARK LIKE' CHARACTER BY PLANTING SUBSTANTIAL GROUPS OF TREES. A 'WETLAND' IS PROPOSED IMMEDIATELY ADJACIENT TO THE STOPBANK.

Hutt River Environmental Strategy
Concept Sketches: Maoribank

THE REGIONAL COUNCIL
caring about you & your environment

Prepared for the Wellington Regional Council by Clive Anstey and Rose Armstrong, Consultant Landscape Architects.
February 2000



Hutt River Environmental Strategy

Concept Sketches: Maoribank

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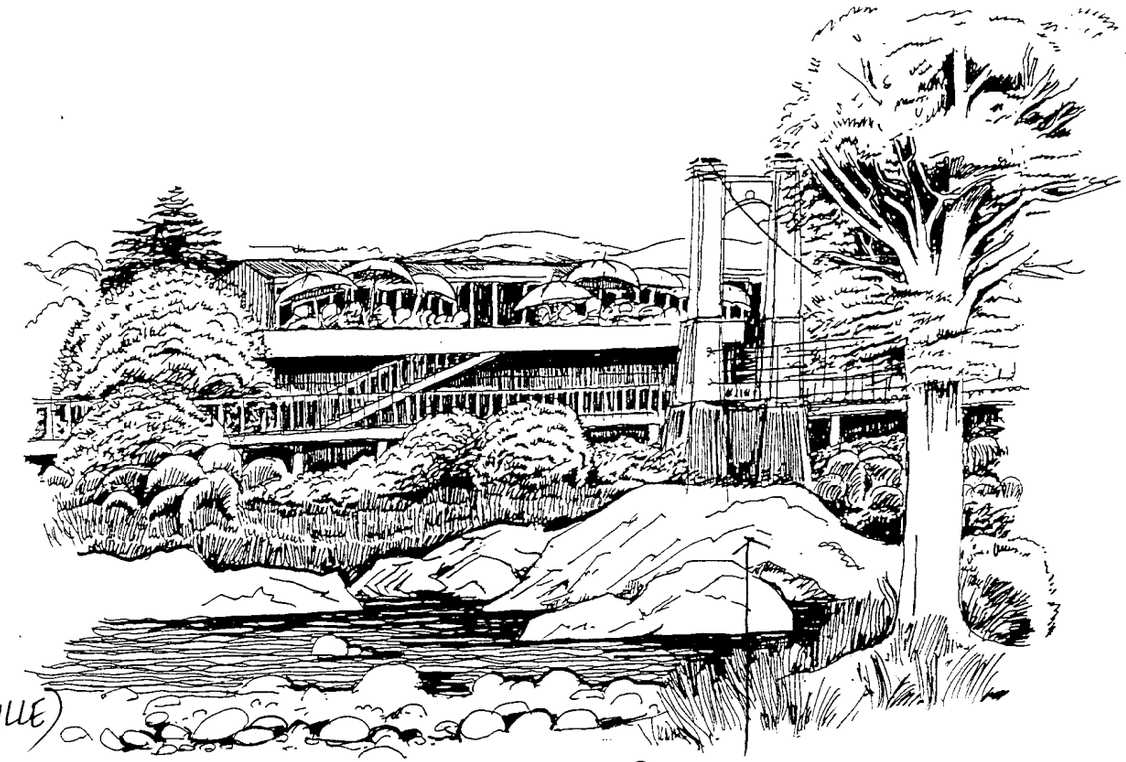
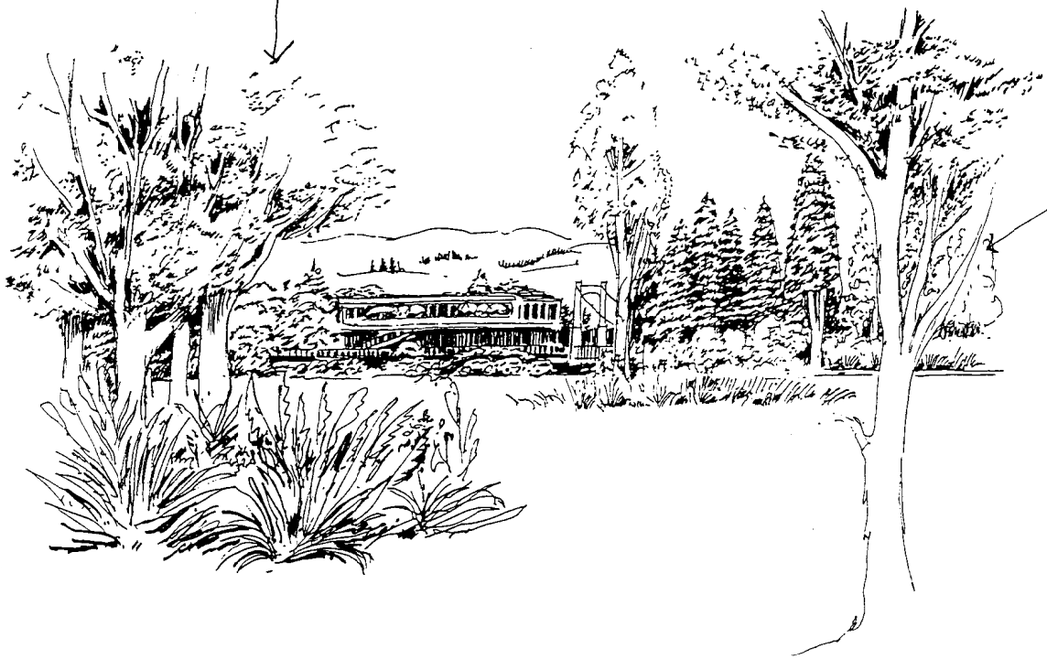
A VIEW TOWARDS THE ELBOW IN THE RIVER, THE LOCATION OF THE SWIMMING HOLE. THE SITE CURRENTLY OCCUPIED BY THE DAIRY HAS BEEN RE-DEVELOPED. THIS 'CAFE' IS DESIGNED TO PROVIDE VIEWS UP THE RIVER TO THE WESTERN HILLS.
A MUCH IMPROVED WALKING/CYCLE TRACK PASSES UNDER THE BUILDING.

REINFORCE BEECH PLANTING. BEECH IS THE DOMINANT TREE IN THE AREA AND CONFERS ITS UNIQUE CHARACTER. (BEECH = BIRCH, HENCE BIRCHVILLE)



REINSTATED BRIDGE FOR WALKERS

EXTENSIVE GROUPS OF POPLARS IN THIS AREA TO SEPERATE OUT THE SPORTS FIELDS



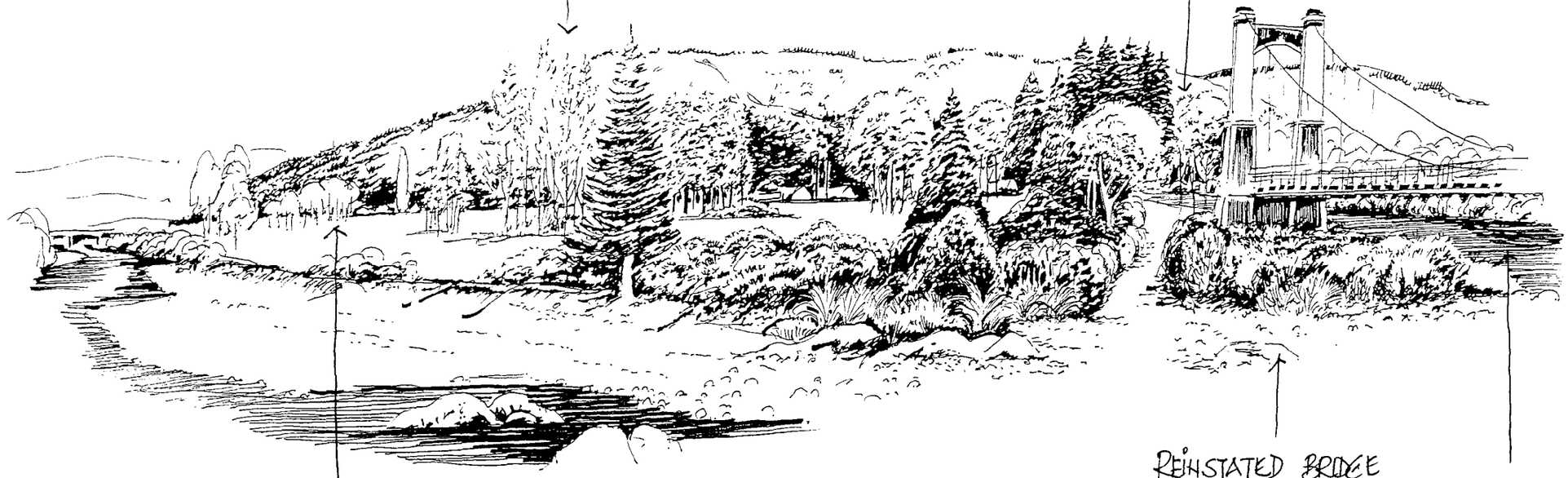
Hutt River Environmental Strategy
Concept Sketches: Maoribank

THE REGIONAL COUNCIL
caring about you & your environment

Prepared for the Wellington Regional Council by Clive Anstey and Rose Armstrong, Consultant Landscape Architects.
February 2000

SUBSTANTIAL GROUPS OF POPLARS PLANTED TO SEPERATE SPORTS FIELDS FROM THE AREAS ASSOCIATED WITH THE SWIMMING HOLE

GROUPS OF TREES PLANTED ALONG THE BERM (A SUBSTANTIAL NUMBER HAVE ALREADY BEEN PLANTED)



REINSTATED BRIDGE

EXISTING SWIMMING HOLE

THE AREAS OCCUPIED BY PLAYING FIELDS WITHIN THE FLOODWAY ARE LARGELY DEVOID OF TREES. THE PROPOSAL IS TO PLANT TREES ON BOUDARIES AND IN SPACES NOT REQUIRED FOR FORMAL SPORT.

Hutt River Environmental Strategy

Concept Sketches: Maoribank

THE REGIONAL COUNCIL

caring about you & your environment

Prepared for the Wellington Regional Council by Clive Anstey and Rose Armstrong, Consultant Landscape Architects.

February 2000

5.11 Birchville

Harcourt Park to Gillespies Road

Objective: protect and enhance existing river access points and "natural" secluded character of river; gain riverside public access through the area.

The river flows through a deep gorge that is enclosed by hills. The landscape is dramatic with a strong natural character despite residential development close by. The community has a close relationship with the river, with a number of access points and well-established patterns of use. As with the previous reach, this part of the river is of recreational value with Hoggard Park, Rata Park, a rafting entry and exit point, canoe clubrooms, and a scout hut. Cannon Point walkway and walking tracks on the western hills run close to the river. The Brown Owl historic tearooms are also close to the river on Akatarawa Road.

There is a small bush reserve close to the river by Rata Park.

Key Proposals:

- ***Plant eco-sourced native beech wherever possible in new plantings to build on existing remnants and reflect the origins of the area's name.***
- ***Define and enhance existing easements and access points to the river with planting.***
- ***Use existing roads/tracks and riverside easements on the western bank to give public access through the area and link tracks from the south to Kaitoke Regional Park.***

A number of river access points and a riverside easement strip were included when this residential area was built. However, a number of access points are now overgrown and closed in, as is the west bank easement strip.

In this area the west bank is the preferable route for the recreation trail. On the east bank the trail is forced to follow the road due to lack of room on the escarpment as residential housing is close to the river edge. On the west side, the trail from Maoribank could be linked into Bridge Road near the Akatarawa Road Bridge, and then continued north along the existing west bank easement strip at Birchville. If the Birchville west bank easement strip is cleared to allow through access, it will become important to replace planting to maintain the existing sense of seclusion beside the river.

Did you know that…

The name "Brown Owl" dates from the 1920s when May St Johnston opened a teahouse at the junction of Akatarawa Road and the main road north. Meals were often served outside under the trees. A ballroom was added later. The tearooms were called "Brown Owl" after an old inn "The Owl" that May used to be taken to as a girl in Epping Forest, England where she spent many happy hours.

(J.A. Kelleher *Upper Hutt – The History*)

5.12 Te Marua

Gillespies Road to Te Marua stockcar track

Objective: gain riverside public access through the area and preserve a "natural" backdrop to the river.

The area around Te Marua is rural in character with a bush backdrop. Farmland and a golf course edge the river. Visual and physical access to the river for the wider public is restricted. There are several recreational facilities in this reach, including the Te Marua golf club, the stock car racing track, the rope swing and the pony club.

The area also has historic value with a pa site, the Benge homestead site and sawmill and an old logging track.

There are remnants of native bush that the local community and interest groups are restoring, such as Te Marua Bush, and pockets of wetland close to the river.

Key Proposals:

- ***Acquire land adjoining the river or an easement on western bank.***
- ***Create a recreation trail and ecological corridor along western bank linking with Kaitoke Regional Park.***
- ***Secure other reserve land where desirable, especially on the western bank to link new western bank corridor with surrounding hills.***

If farmland in this area were subdivided in the future, the character of this area would change dramatically, potentially having an adverse effect on the recreational experience of the river. The river experience in this area should remain a "natural" one, leading into the "wilderness" experience of Kaitoke Regional Park. The land along the cliff edge on the western bank is potentially erosion prone. The acquisition of a reasonable wide easement, for instance, would buffer the river from potential adverse effects from subdivision, and provide an ecological corridor of a meaningful size to Kaitoke Regional Park. The western bank is the preferable long-term route for the river recreation trail due to the close proximity of the State Highway to the eastern bank.

5.13 Kaitoke Regional Park

Te Marua stockcar track up to the gorge at the south-western end of Kaitoke Regional Park

Objective: reinforce the natural indigenous character and establish recreation links south.

This is an area with a strong indigenous character and a popular wilderness area. This is the lower end of Kaitoke Regional Park, and there are plenty of picnic areas and beaches giving access to the river. There are several good swimming holes and a rafting entry/exit point. There is also an outdoor amphitheatre for staging concerts and other activities. The old logging track runs along the west bank.

There are a few small bush remnants between the Kaitoke water storage lakes and the river.

Key Proposals:

- ***Use eco-sourced native plant species only.***

- ***Establish recreation trail links south.***
  Short-term – create a cycleway along State Highway 2.
  Long-term – establish trail along the historic logging route on western escarpment.

- ***Erect a swing bridge linking the historic logging route across the river into Kaitoke Regional Park.***

The concept plans present the western bank and escarpment as the preferable route for a riverside access trail from Kaitoke Regional Park south to the Harcourt Park area. This is a long-term proposal and would be dependent on land or easement acquisition in the Te Marua area (see section **5.12**), and a new swing bridge linking the trail across the river to Kaitoke Park.

6 Roles and Responsibilities

This Environmental Strategy places no further obligation on the Wellington Regional Council, Upper Hutt City Council, Hutt City Council or any other party beyond their existing statutory responsibilities.

It is acknowledged that:

- Each agency and party has its own mandate and responsibilities.
- One party cannot prescribe what another might do.
- There are only limited financial resources, and recommendations that involve significant costs may only be achieved over a long period of time.
- The rights of private landowners within the area covered by the Environmental Strategy must be respected.
- Achieving the Environmental Strategy relies on the goodwill and co-operation of the community and all the agencies involved.

The roles and responsibilities of the owners, agencies, parties or groups with an interest in the environment and health of the Hutt River are presented below:

Agency/Party	Roles and Responsibilities
WRC	• **Flood Protection** – assists the community to protect itself from the consequences of floods and to provide access to river environments. Also owns a large part of the river corridor, and maintains the berms, banks and facilities. • **Parks and Forests**– manages and enhances the Regional Park network and WRC land access to provide the community with outdoor recreation opportunities. Co-ordinates and assists with the planning, design and management of the Hutt River Trail. • **Environment Division** – promotes the sustainable management of the region's natural and physical resources.
UHCC	• Manages the effects of activities on the Upper Hutt City's natural and physical resources including setting land use controls in the UHCC District Plan to ensure that land uses are suitable for protecting and enhancing the river environment. • Also has operational role (management of parks and reserves, access trails etc.).
HCC	• Manages the effects of activities on the Hutt City's natural and physical resources including setting land use controls in the HCC District Plan to ensure that land uses are suitable for protecting and enhancing the river environment. • Also has operational role (management of parks and reserves, access trails etc.).
Iwi	• Kaitiakitanga (guardianship) and consequent duties. • Treaty partner.
Interest groups	• Various. Different groups have different roles and responsibilities, for example Forest and Bird Protection Society's stated role is the protection of New Zealand's native forests, threatened species and marine heritage.

Agency/Party	Roles and Responsibilities
Department of Conservation	• Advocates for the protection of threatened habitats and species through the statutory resource management process. • Advocates for the protection of native fish and fish passage in inland waterways under the Freshwater Fisheries Regulations 1983. • Also responsible for management of Trentham Scenic Reserve and other reserves.
Wellington Fish & Game Council	• Advocates and manages sports fishing and game-bird hunting in the national interest.
Rotary Clubs	• Undertake to improve the quality of life in their community. • Also support Probus Clubs. Probus Clubs are not service organisations but have social events and regular speakers to keep up to date with the community. Most Probus members are active volunteers. • Co-ordinate sponsorship and fund design, construction and installation of Hutt River Trail facilities. As part of this, they inspect and report on condition of the Trail, maintain Trail facilities they have developed, and organise promotion of the Trail.
Landowners	• Section 17 of the RMA states everybody has a duty to avoid, remedy, or mitigate any adverse effect on the environment. • Various responsibilities under Biosecurity Act and Conservation Act.

6.1 Management Framework

Iwi and community involvement in the management of the Hutt River is crucial for the river's long-term environmental protection and enhancement. Accordingly, any proposed management structure must ensure that opportunities for their ongoing involvement exist and are ensured. Encouraging the efforts of private landowners and community groups, by providing technical advice and materials is also essential. However, budget restrictions may determine the extent of this support.

One of the key recommendations of this Environmental Strategy is to establish a mechanism for community and tangata whenua input into decision-making processes and the implementation of the strategy (see Section 4.6.2). This could take the form of a committee or group charged with the Strategy's management.

We also need an over-arching management committee, comprising of officers and councillors from Upper Hutt City Council, Hutt City Council and Wellington Regional Council and iwi representatives.

Initially this committee needs to investigate options for the preferred management framework, including opportunities for ongoing community/tangata whenua involvement. The management committee will then take overall responsibility, with the community/tangata whenua group being responsible for supporting and assisting with the implementation of the Environmental Strategy.

7 Policy Framework

7.1 National Policy

7.1.1 Resource Management Act 1991

The primary statute under which the **natural** and **physical resources** of the region are managed is the Resource Management Act (RMA). The RMA provides for the preparation of regional and district plans to assist the councils in carrying out any of their functions in order to achieve the purposes of the RMA.

The purpose of the RMA is to promote the **sustainable management** of natural and physical resources (section 5). Sustainable management is defined in the RMA as:

> *"managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural well being and for their health and safety while -*
>
> *(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
>
> *(b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
>
> *(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment."*

Under the RMA, the Wellington Regional Council (WRC), Upper Hutt City Council (UHCC) and Hutt City Council (HCC) have functions that require them to avoid or mitigate natural hazards, including flooding and erosion.

In undertaking operations and maintenance activities to avoid or mitigate natural hazards, WRC, UHCC and HCC must also recognise matters of importance outlined in section 6 of the RMA. The relevant sub-sections state:

> *(a) The preservation of the natural character of the coastal environment, wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development:*
>
> *(b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development:*
>
> *(c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*
>
> *(d) The maintenance and enhancement of public access to and along the coastal marine areas, lakes and rivers:*
>
> *(e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*

Section 7 of the RMA states that regard must be given to:

(a) Kaitiakitanga:

(aa) The ethic of stewardship:

(b) The efficient use and development of natural and physical resources:

(c) The maintenance and enhancement of amenity values:

(d) Intrinsic values of ecosystems:

(e) Recognition and protection of the heritage values of sites, buildings, places, or areas:

(f) The maintenance and enhancement of the quality of the environment:

(g) Any finite characteristics of natural and physical resources:

(h) The protection of the habitat of trout and salmon.

Section 8 states that the **principles of the Treaty of Waitangi** shall be taken into account. Sections 6e, 7a and 8 ensure Maori interests and values are recognised and provided for in achieving the sustainable management of natural resources such as rivers.

In managing the Hutt River and its margins for flood protection purposes, WRC, UHCC and HCC have a duty under the RMA to avoid, remedy, or mitigate any adverse effects on the environment. This duty applies to all people wising to undertake activities affecting the Hutt River and its environs.

Section 30 of the RMA outlines the functions of regional councils, and includes the responsibility for the **integrated management of natural and physical resources**. Regional councils are also charged with the responsibility of setting objectives and policies relating to effects of use and development, or protection of land that is of regional significance. Section 30 gives Wellington Regional Council the mandate to prepare plans for the Hutt River and its catchment so that its natural and physical resources are managed in an integrated way. This is not limited to flood protection, but also includes enhancing water quality and quantity, taking and use of water, discharges and soil conservation.

7.1.2 The Treaty of Waitangi

The Treaty of Waitangi signifies a partnership between the Crown and Maori. Consultation between the Treaty partners has been interpreted by the Court of Appeal as requiring each party to act in a manner of reasonableness, fairness, good faith and an understanding of and willingness to accommodate each party's views. In preparing the Hutt River Environmental Strategy, the Treaty of Waitangi is relevant, particularly in relation to Maori taonga, including the river, its tributaries, fisheries, water and forests, waahi tapu and mahinga kai. Currently there are claims before the Waitangi Tribunal involving the Hutt River and its environs (see section **4.2.3**).

The Environmental Strategy must take into account Treaty obligations. A good relationship with Te Ati Awa/Taranaki ki te Upoko o te Ika a Maui is required, to identify and provide for Maori interests and values in the management of the Hutt River and its environs. Ensuring kaitiakitanga principles and practices associated with the river are incorporated into the river's management is consistent with the Treaty of Waitangi and the sustainable management of the Hutt River.

7.1.3 The New Zealand Biodiversity Strategy

The Biodiversity Strategy is a strategic framework to **conserve, sustainably use** and **manage New Zealand's biodiversity**. It sets out goals and principles, some of which give guidance and direction to prepare and implement the Hutt River Environmental Strategy, for example:

- Individuals and public agencies should work together in a co-ordinated manner, to share knowledge, costs and benefits, to be clear about our different roles and responsibilities and to have the capability and resources to contribute.
- Management agencies should recognise the variable capacity of individuals and local communities.
- Property rights should be respected, and collaborative partnerships be developed between resource owners, users and public agencies to sustain and conserve biodiversity.

Some of the key issues identified in the Biodiversity Strategy are of particular relevance to the Hutt River, for example **restoring connections** between isolated fragments or natural ecosystems and improving our technical knowledge and community understanding, enhancing communities opportunities and their capacity to be involved in biodiversity management.

One of the "themes" of the Biodiversity Strategy is that of **freshwater biodiversity**. This is of great importance as it sets the following desired outcome to be achieved by 2020:

> "The extent and condition of remaining natural freshwater ecosystems and habitats are maintained. Some degraded or scarce habitats, such as lowland river systems, important wetlands and riparian areas, are restored or increased in area…
>
> Human activities in catchments are managed in an integrated way, avoiding, remedying or mitigating the adverse effects of land and water use (including pollution and sedimentation) on freshwater ecosystems. All freshwater ecosystems support biological communities largely comprising indigenous species. Plant and animals pests are managed to prevent further spread, and eradicated where necessary, to protect threatened indigenous ecosystems and species. Introduced fish (including sports fish such as trout and bio-control species such as grass carp) and introduced game (such as ducks) are managed so that they do no pose threats to indigenous species of plants or animals.
>
> There have been no further human-induced extinctions of indigenous freshwater species. Threatened species are on their way to recovery within their natural habitat, or in temporary ex situ facilities where necessary. The harvest of indigenous and introduced freshwater species is sustainable and does not pose a threat to freshwater biodiversity.
>
> Land managers and communities continue to be actively involved in protecting and restoring freshwater bodies and habitats of special value to them."
>
> (The New Zealand Biodiversity Strategy, February 2000, p 45)

Other "themes" in the Biodiversity Strategy are the relationship of tangata whenua with biodiversity, and community participation and awareness. These themes seek to increase the level of **iwi and community involvement** in the planning and management of biodiversity, improve the capabilities of both to be effective in that involvement, and to recognise their values and beliefs.

7.2 Regional Policy and Related Plans

7.2.1 Regional Policy Statement

The Regional Policy Statement (RPS) provides an overview of resource management issues and sets out policies and methods by which WRC seek to achieve integrated management of the natural and physical resources of the region. It contains objectives, policies and methods covering a wide range of resource management issues. Of particular relevance to this Environmental Strategy are the chapters on **Ecosystems, The Iwi Environmental Management System, Landscape and Heritage** and **Fresh Water**.

The principal message of the **Ecosystems** chapter is that the management of natural resources should take account of, and provide for, the ecological processes of the systems of which they are a part. This recognises that we live within ecosystems, and that these living webs provide us with the services and products needed for us to survive.

The RPS gives strong policy support for WRC to manage ecological processes while it is carrying out its functions. This provides this Environmental Strategy with a rationale and justification for seeking to manage in an active way the ecosystems present in the Hutt Valley and the processes that connect them.

The Ecosystems chapter is not only concerned with protecting or conserving the important areas that are left, for instance, native bush remnants and wetlands. It argues that sustainable management of the environment will only happen if we keep the underlying ecological relationships supporting life in the biosphere working. Only in this way can indigenous ecosystems survive. This chapter gives the basis for a more ecologically attuned management strategy for the Hutt River and its environs.

The ecosystem objectives to be achieved in the region are:

- *The overall quality (or health) of the region's ecosystems is increased.*
- *Healthy functioning ecosystems are distributed throughout region – urban as well as rural.*
- *The area and quality of indigenous ecosystems is increased.*
- *There is diversity in our ecosystems, and the full range of regional flora, fauna and habitats is provided for.*
- *Special ecosystems are actively protected and appropriately managed*

These objectives are applicable to the Hutt floodplain. To achieve these objectives WRC has adopted a number of policies. These are intended to guide decision-making when managing those parts of the environment under WRC control.

The most significant of these (Policy 4) requires WRC to avoid, remedy, or mitigate the effects of our activities on:

- *Indigenous biodiversity, so that it is not reduced.*

- *The effective operation of natural processes within ecosystems (for example, nutrient cycles, energy flows, and water cycles).*

- *The structure of indigenous ecosystems, so that it is not unduly simplified.*

- *The quality and quantity of non-living parts of the ecosystem (water, air, soil, decaying matter) so that the life supporting capacity of the system is not adversely affected.*

This doesn't mean we cannot do things that have an effect on these ecosystem characteristics, rather that our actions need to appropriate avoid, remedy, or mitigate any adverse effects. This policy has clear implications for activities associated with the management of the Hutt River environment, in terms of the physical works that may be carried out in future, and in terms of our overall philosophy about how the valley should be managed.

It is also important to note that WRC has already made a commitment to these kinds of actions in the RPS. For example, in the Ecosystems Chapter, method 12 states WRC will:

- *Protect indigenous ecosystems and high priority urban and rural ecosystems, where practicable, and where it is within the Council's powers to do so.*

The RPS gives particular emphasis on the need to support the linkages between ecosystems. Policy 9 supports ecosystem restoration and enhancement along the length of the river corridor, fostering of the movement and migration of species and avoiding the fragmentation of ecosystems.

The **Iwi Environmental Management System** chapter addresses how WRC will involve tangata whenua in the management of natural and physical resources. This includes how to take kaitiakitanga and the Treaty of Waitangi into account, and how to develop a mutually satisfactory relationship.

Of particular importance to this Environmental Strategy is Policy 4 states that we will:

- *Recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.*

Policy 5 gives us clear guidance that we must take account of Treaty claims when we develop policies and plans, and make decisions under the RMA.

The RPS also states that we will recognise environmental management plans prepared by iwi. Method 11 in this chapter is also important, it states that WRC will:

- *In consultation and partnership with tangata whenua, will investigate opportunities for iwi management of resources and opportunities for joint management, where appropriate.*

This gives us the mandate to look into options for iwi involvement in implementing this Environmental Strategy through establishing an acceptable management framework.

Other issues in the RPS with relevance to this Environmental Strategy include chapters on **Landscape and Heritage** and **Fresh Water**.

Objectives in the **Fresh Water** chapter identify the range of uses and values of freshwater, safeguarding its life sustaining capacity and the needs of future generations, and protecting and enhancing significant freshwater resources. Policy 8 promotes the retirement and planting of riparian margins, while Policy 9 states that adverse effects on water quality, amenity, cultural and ecosystem values from activities in the bed of the river should be avoided, remedied or mitigated.

Landscape and Heritage chapter states that the values of regional significance are to be protected, while natural and physical resources that are of recreational importance are to be maintained or enhanced (see section **10.3**). The RPS also gives clear guidance on protecting our natural resources including rivers and both native and exotic vegetation so that future generations have the potential to use these open spaces for recreation.

7.2.2 Regional Freshwater Plan

The Environment Division of WRC administers the Regional Freshwater Plan. In the Plan, parts of the Hutt River and catchment are recognised to:

- Be important trout habitat – water quality to be managed for fishery and fish spawning.
- Have regionally important amenity and recreational values – water quality to be managed for contact recreation purposes.
- Be a water body with water quality to be managed for water supply purposes.
- Be a water body with water quality that needs enhancement (in relation to Waiwhetu Stream, see section **7.2.6**).

The Plan sets policy for the use, development, discharges and abstractions from the river aimed at achieving these goals.

Water quality in the Hutt River is managed for a variety of reasons. The Plan recognises that parts of the Hutt River are important for fish habitat, amenity and recreational values, and for water supply purposes. However, some parts of the Hutt River catchment require enhanced water quality, such as the Waiwhetu Stream. The Freshwater Plan provides policies and rules regulating the effects of activities in this environment. Implementing the Environmental Strategy may require undertaking activities that are subject to the provisions of this plan.

Rules within this plan allow certain activities, such as the maintenance and repair of existing lawful structures (rule 22), the removal of structures (rule 33), and planting species for habitat restoration (rule 41). However, permitted activities are subject to conditions controlling any adverse effects arising from an activity. Generally a permitted activity can be undertaken as long as contaminants are not released to the riverbed, nesting birds and trout habitats are not disturbed, public access is not restricted and machinery is not left on site. Other activities, such as the reinstatement of the bridge at Maoribank corner, will require consent from WRC. In addition, although an activity may be permitted, or authorised by the WRC, the landowner has the right to control the use or development of the land. The landowner's permission is therefore crucial to obtain, prior to undertaking any activities in accordance with this Environmental Strategy.

7.2.3 Ecological Corridors

The Environment Division of WRC has produced a paper looking at the uses and potential of ecological corridors in the Wellington Region. This paper forms the basis identifying areas where corridors and buffer zones are needed and their subsequent protection. This paper identifies river corridors, including the Hutt River corridor, as "*offering perhaps the best opportunity* [on WRC land] *for creating functioning ecological corridor*s".

The paper notes that further work is needed to investigate the potential for establishing ecological corridors in the Wellington Region. This paper is based on similar work being undertaken by other Regional Councils around New Zealand and ties in with the ecosystem approach to natural and physical resource management identified in the RPS.

7.2.4 Hutt River Floodplain Management Plan

The Flood Protection Group (Flood Protection) of WRC is responsible for facilitating a holistic and integrated approach to mitigating the effects of flooding and erosion on the Hutt River communities. To achieve this the Flood Protection Group is preparing a Hutt River Floodplain Management Plan (HRFMP), which will identify the structural works, non-structural methods and river management required in the Hutt River Floodplain. This Environmental Strategy is part of the Hutt River Floodplain Management Plan.

The region's floodplain management plans are not statutory documents in themselves. Regional and District Plans are to be used to ensure that the various non-structural methods are used for mitigating and avoiding flooding. The Flood Protection Group's plans describe the methods for managing the river and its flood defence systems.

Structural works and river management activities have the potential to cause adverse effects on the river environment. Flood Protection has a duty under the RMA to avoid, mitigate or remedy the adverse effects of any physical works. Often this takes the form of "environmental compensation", for example, creating a wetland in an old meander of a straightened river channel. Resource consents are required for most major structural works. Long-term consents are already held for the day-to-day river management activities.

This Environmental Strategy is a fundamental part of an integrated management philosophy and forms one of the building blocks for the HRFMP. The Hutt River Environmental Strategy is a key component of the Hutt River Floodplain Management Plan. It describes a long-term vision for the river and sets the direction for the management and development of the river, and its margins, at a strategic level. The proposed improvements to the Hutt River flood defence system will be guided by the vision of the Environmental Strategy. The Strategy also gives guidance to the HRFMP as to how the "environmental compensation" could be best used to achieve the long-term vision for the Hutt River and its environs.

7.2.5 Environmental Code of Practice

The Environmental Code of Practice documents the various river management methods used by the Flood Protection Group on the Hutt River. The document identifies practices to ensure that any adverse environmental effects of these works are minimised.

Council staff and contractors use the Code when planning, supervising or undertaking flood protection works. It is intended as a user-friendly document, clearly identifying the appropriate techniques for minimising the impacts of flood protection works on the river environment.

The Code distinguishes between work practices required by law (i.e. conditions on resource consents) and those **best management practices** that should be undertaken wherever possible.

The Hutt River Environmental Strategy provides a vision, proposals and projects that are aimed at enhancing the river environment, rather than mitigating any adverse effects of flood protection works. Wherever appropriate, the Code of Practice should be used when undertaking physical works to implement the Environmental Strategy. This should help ensure that the works are done with least impact on the environment.

7.2.6 Waiwhetu Stream Rehabilitation Project

The Environmental Strategy includes concept designs and proposals for the lower reaches of the Waiwhetu Stream, in the vicinity of Port Road. In addition to, and separate from these proposals, the Environment Division of WRC is co-ordinating a management process for the whole of the Waiwhetu Stream. This project is looking to develop a **community based** and driven vision and strategy for the **rehabilitation** of the stream to:

- Restore the *mauri* of the stream by restoring its ecological qualities.
- Enhance the visual character of the stream corridor and restore a sense of community pride in it.
- Enhance the recreational opportunities offered by the stream and its corridor.

This management process draws together the roles, responsibilities and aspirations of a wide range of agencies, groups and individuals. This Environmental Strategy recognises the Waiwhetu Stream management process and the primacy of its likely outcomes, particularly in relation to the stream mouth. The proposals and vision for the Seaview area of this Environmental Strategy must therefore take into account the outcomes of the Waiwhetu Stream Rehabilitation Project.

7.3 District Policy

Land use controls in the District Plans enable Upper Hutt and Hutt City Councils to ensure that land uses are suitable for protecting and enhancing the river environment.

Requirements for esplanade reserves, strips, and access strips are set out in both the proposed Upper Hutt City Council District Plan and the proposed Hutt City Council District Plan. These requirements allow the Council to set aside a strip of land next to a river when adjoining land is subdivided.

7.3.1 Upper Hutt City Council District Plan

Standard 11.6.2.5 'Esplanade Reserves and Strips' states that any land being subdivided that adjoins any of the following rivers will require esplanade reserves to be set aside according to the following table.

River	Width of esplanade reserve
Hutt River	20m (both banks)
Whakatikei River from its junction with the Hutt River to 1km upstream from the junction of the Whakatikei River and Wainui Stream	20m (both banks)
Akatarawa River West for that part of the river passing through the Wellington Regional Council land	20m (both banks)
Pakuratahi River for that part of the river passing through the Wellington Regional Council land	20m (both banks)
Mangaroa River for that part of the river where sites are within 50m from the road on a walkable grade	8m (minimum) (both banks)
Mawaihakona Stream for that part of the river passing through the St Patrick's Estate Development Area where the adjoining land is public open space	5–12m (both banks with the width being determined having regard to relevant environmental circumstances, recreational potential and width of any adjoining esplanade reserve)
Collins Creek from its intersection with the Mangaroa River to the Tunnel Gully Recreation Area	Varying width suitable for access purposes along one side of the creek for its full length, except along its lower reaches near Mangaroa Road where the environmental qualities of the bush clad gorge are significant, and an esplanade reserve shall be provided along both banks of the Creek. The width shall be determined having regard to adjoining environmental circumstances and recreational potential
Hull's Creek from its junction with the Hutt River to Field Street	5–12m with the width being determined having regard to relevant environmental circumstances
Cooleys Creek from its junction with the Mangaroa River to Mangaroa Road	5–12m with the width being determined having regard to relevant environmental circumstances
Huia Stream from its junction with the Mangaroa River to Whitemans Valley Road	5–12m with the width being determined having regard to relevant environmental circumstances

River	Width of esplanade reserve
Narrow Neck Stream from its junction with the Mangaroa River to Whitemans Valley Road	5–12m with the width being determined having regard to relevant environmental circumstances
Akatarawa River from its junction with the Hutt River to its entry into Department of Conservation land	Varying width (minimum of 5m or as otherwise determined by Council) to reflect the width of the river and adjoining environmental circumstances
Mangaroa River for that part of the river where sites are not easily accessible from existing roads (i.e. more than 50m from the road or of a difficult grade) running from the junction of the Mangaroa River with the Hutt River to Russells Road	Varying width (minimum of 5m or as otherwise determined by Council) to reflect the width of the river and adjoining environmental circumstances
Mawaihakona Stream for the part of the stream passing through the Wellington Golf Club land extending from Trentham Memorial Park to Heretaunga Park, and also for that part of Mawaihakona Stream passing through the St Patrick's Estate Area, where the adjoining land is not a reserve	5–12m being a width suitable for access purposes having regard to relevant environmental circumstances
Pakuratahi River for that part of it slower reaches not passing through Wellington Regional Council land	10–15m with the width being determined having regard to relevant environmental circumstances

(See the District Plan for maps showing where these watercourses are.)

Waiving these requirements will be considered, depending on:

- Availability of alternative public access.
- Other means of protecting water quality and conservation values.
- Recreational values of the waterbody in question.
- Information provided to support any proposal to waive or vary esplanade reserve requirements

7.3.2 Hutt City Council District Plan

Policy 11.2.4 Esplanade Reserves, Strips and Access Strips

b) In all activity areas, in respect of lots less than 4 hectares, an esplanade reserve at least 20m wide shall be set aside for such lots along the bank of any river whose bed has an average width of 3m or more where the river flows through or adjoins the lot concerned.

c) In respect of lots with areas of 4 hectares or greater, an esplanade reserve or strip at least 20m wide shall be set aside for such lots along the banks of the… (i) Hutt River and (iv) Waiwhetu Stream

7.4 Policies of Other Agencies

The **Department of Conservation** advocates for the protection of threatened habitats and species through the statutory resource management process. The Department is also charged with the protection of native fish and fish passage in inland waterways under the Freshwater Fisheries Regulations 1983. The Wellington Conservancy is responsible for management of Trentham Scenic Reserve and other reserves such as Taita Scenic Reserve within the Hutt catchment.

Both **Transit New Zealand** and **Tranz Rail** have interests in the land adjoining the river. If these parties supported an ecological approach it would help ensure that the management of each party's corridor complemented the Hutt River Environmental Strategy's vision. This could be achieved through a protocol or agreement.

7.4.1 Department of Conservation

The Wellington Conservancy of the Department of Conservation has also produced several policy documents that are of relevance to this Environmental Strategy. The principal document is the **Conservation Management Strategy** (CMS) for Wellington[9].

While many of the issues, objectives and policies deal with land managed by DoC, there are some that are of particular relevance to the Hutt River Environmental Strategy. The CMS identifies the need for DoC, iwi, local government, communities and landowners to *"conserve natural and historic resources"* in an integrated way to protect natural resources.

DoC also has an interest in the conservation of indigenous ecosystems outside of the conservation estate. The CMS identifies priorities for DoC, and includes "*any ecosystem which encompasses …rivers and river margins…and estuaries".* The CMS further identifies the need for DoC to work with other agencies to ensure that these ecosystems are protected.

The CMS also states that DoC will work with other agencies to conserve indigenous species. Of most relevance to the Hutt River Environmental Strategy is the protection of indigenous freshwater fish. Some of the species, for example inanga and common bully, have been identified as needing monitoring. In addition, work is required to rehabilitate migration routes and habitat within the Hutt River for these species.

DoC has also developed principles and policies for the **ecological restoration** of the Wellington Conservancy[10].

One of the major priorities for ecological restoration is the establishment of **riparian corridors** linking the hills with the coast. The riparian planting done with the Te Momi community in Lower Hutt is n example of what can be achieved. Some of the key reasons why riparian corridors are so valuable include:

- *Rivers are linear ecosystems that traverse vast areas of land, linking different altitudinal, geological, landscape and tenure systems. The diversity of aquatic life in the water, and terrestrial life on the river banks can be enhanced by this variety.*

[9] Conservation Management Strategy for Wellington 1996 – 2005 *Wellington Conservancy Conservation Management Planning Series No. 2* (1996) Department of Conservation.
[10] Ecological Restoration in the Wellington Conservancy (1997) Simpson P. Department of Conservation.

- *As a result of this natural terrain diversity, 'islands' of natural communities commonly occur along the length of a river, and these can serve as sources of regeneration. A large number of New Zealand plants are adapted to riparian conditions. Many are riparian dependent.*

- *Natural regeneration or the survival of planted stock may be assisted by the quantity of soil in riparian zones and the ready availability of water.*

- *Some riparian zones are publicly owned marginal strips (the Queens Chain) that are not necessarily part of a farm, and also ensure public access.*

- *Riparian forest can shade the water, help absorb nutrients in farm run-off, and can diminish bank erosion. Reduced temperature variation, nutrient level and sediment load improves water quality for aquatic life… and recreation.*

DoC states that:

For all of these reasons, riparian corridors offer excellent opportunity to interlink isolated parts of protected land, as well as integrating protected and non-protected areas.

Other opportunities identified for ecological restoration include sustaining land already protected (whether managed by DoC or WRC), adding to protected land, and focussing on threatened species and habitats.

7.4.2 Transit New Zealand (Transit)

Transit has a responsibility for providing a safe and efficient state highway system that meets the needs of road users and the communities it serves. Transit sets policy addressing the effects of development on the state highway network and the associated effects on the environment. Transit also has landowner related responsibilities.

Section 2.4.4 of Transit's Planning Policy Manual (1999) states, amongst other things, that Transit will:

- *As far as practicable, restore wildlife habitats adjacent to existing state highways.*

- *Where it is appropriate, provide well managed construction and maintenance programmes to control plant pests.*

Section 2.5.2 notes states that Transit will:

- *Continue to improve ways of assessing the effects of community disruption from land transport projects, and where practical, reduce these effects by providing amenities such as underpasses or overpasses, amenity plantings, and visual separation of pedestrian and cycle activities from state highway traffic.*

7.4.3 Tranz Rail

The operational side of Tranz Rail is divided into service delivery, infrastructure and mechanical engineering. These operational groups are responsible for the smooth running of the rail network, managing the physical aspects of the network, including track and structures, telecommunications, signalling, designing, building and maintaining Tranz Rail's assets. This includes locomotives, wagons, passenger stock, vehicles, and buildings.

These groups are supported by the Corporate Office, which provides functions such as safety, quality, finance, property, communications and business services.

As with Transit, the work that Tranz Rail does has the potential to affect the Hutt River Environment. Tranz Rail states that one of its commitments is that they will be environmentally responsible and will strive for excellence.

8 Issues and Objectives

The issues and objective of this Environmental Strategy are drawn from Phase 1 of the HRFMP process. The detailed baseline surveys of the river environment, the aspirations of tangata whenua, and the community contributed to identifying the issues. The objectives were derived from the issues, and feedback was sought from the local community through newsletters, newspaper inserts and signs at strategic locations along the river. The HRFMP Advisory Committee then confirmed the objectives.[11]

8.1 Cultural and Heritage Values

8.1.1 Issues

- The river was, and is, a major geographic landmark and reference point for Maori. It is an important symbol associated with tupuna (ancestors), food and sustenance. The banks are places where Maori once had settlements, gardens and burial grounds. The river is tapu because of its association with these features and qualities. There are a small number of places that have special significance to tangata whenua, including urupa, sites of old settlements and existing marae.
- Kaitiakitanga requires more than just recognition.
- Tangata whenua consider re-establishing swamp areas and native flora and fauna to be priorities, as well as allowing clear access for the current use of waka.
- The river is regarded as a precious resource in the valley. Public expectation of its use and management appear to largely coincide with the current management regime.

8.1.2 Objectives

- Cultural and heritage values are protected and enhanced wherever appropriate.

8.2 Ecology

8.2.1 Issues

- The ecology of the Hutt River and its catchment has changed dramatically over the last 150 years. There has been a rapid loss of natural habitats, especially in the lower floodplain, for example wetland and whitebait spawning grounds. Only a few remnants of native habitat remain.
- Restoration of the Hutt River and its floodplain to a pre-urban condition is not feasible due to the irreversible nature of the development of the floodplain and its associated impacts.

[11] WRC Report 99.512, 13 September 1999

- Flooding is a natural process. The floodplain is an unstable environment and plant and animal communities have adapted to this. Floods are crucial to the health of certain habitats or species, for example, swamp forest remnants such as Barton's Bush need regular flooding in order to survive. Floods will damage vegetative planting.
- Willows dominate riparian vegetation.
- Native species of animals, fish and birds have declined because of habitat loss and competition from introduced species.
- A range of suitable habitat is required for animal, fish and bird species to survive and flourish:
- Aquatic – river conditions favour trout, native species require greater range of deep pools, fast riffles, shelter and shade.
- Birds – require a variety of young and old vegetation, diverse food sources (native trees rich in fruits are limited on the floodplain) and open space close to the river is important to birds in times of flood.
- Flood protection works have the potential to adversely affect the ecology of the river and its environment.
- There are opportunities to extend and enhance habitats within the river and its margins.
- Water quality decreases downstream, and requires improvement in some tributaries, for example, Hull's Creek and Waiwhetu Stream.
- Large areas of the Hutt River catchment are classified as having moderate-severe erosion potential. This has significant implications for both water quality and flood levels.
- Preservation of the natural character of rivers and their margins, and the protection of them from inappropriate subdivision, use and development is a matter of national importance.

8.2.2 Objectives

- The ecological health of the river and its margins is maintained and, wherever practical, enhanced.
- The existing ecological balance (diversity) of the river and its margins is maintained and enhanced wherever practical.
- The adverse effects of any activities carried out under the HRFMP on the bed of the Hutt River or its banks, water quality, aquatic habitats and freshwater and estuarine ecosystems are avoided, remedied or mitigated.
- Maintain water quality and improve where appropriate.
- The ecological values of the river and its margins are protected and enhanced.

8.3 Recreation

8.3.1 Issues

- Although many sports activities take place near or within the river environment, users seldom link them with the Hutt River. This is because the land has been set aside as an extended flood basin rather than because of the attractions of the river. Stopbanks can separate the river from community recreation areas both visually and physically.
- There is a potential for conflict between users, especially cyclists, pedestrians, horses, dogs and motorised vehicles.
- The river can be a dangerous place, for example flood debris, debris fences and redundant structures can pose a threat to water-based recreationalists.
- Ease of access to and along the river and banks is crucial to its recreational value.
- There is a shortage of facilities for disabled people.
- The river corridor forms an open space through otherwise intensively developed areas, but its relationship to other existing and potential open space is poorly developed.
- In some areas, land uses or structures restrict or block public access, or may detract from an area's recreational use. For example, golf courses appear to be exclusive, and bridges and roads can restrict or obstruct users.
- There is a clear demand for extra facilities such as toilets, litter bins, picnic tables and signs.
- The river's full recreational potential has not yet been realised. While it does not appear necessary to introduce a wider range of activity types, the potential exists to create an environment which will attract more users to the already many popular activities.
- Sports fields in the river corridor can be prone to waterlogging.
- Some activities and facilities have the potential to compromise the flood protection system.

8.3.2 Objectives

- Reduce risk to public safety.
- Maintain and enhance the quality of access to and along the river, where appropriate.
- Enhance and extend the facilities suitable for disabled people to use.
- Develop open space links along the river and its tributaries to form a network of open spaces in urban settings.
- Consciously upgrade the river environment's appeal and provide variety in the character of the river and its immediate environs.
- Improve and extend informal recreational facilities wherever appropriate.
- Reduce conflict between users.

8.4 Landscape

8.4.1 Issues

- The community places a high value on the river's perceived natural character.
- The changing landscape character along the river needs to be recognised and enhanced.
- Visual quality decreases downstream, with increasing urban influence.
- While the river provides a continuum of open space through the length of the valley, the quality of this space has often been ignored. Significant stretches of the riverside are bleak and featureless, or inaccessible.
- Long stretches of dense, even-aged willow plantings have masked the intrinsic landscape character and qualities of the river landscape.
- There is potential to improve the visual quality through alternative management techniques.
- Vandalism and litter detract from the visual appeal of the river landscape.
- Storage of rock and concrete blocks for future flood protection works on the berms can be unsightly.

8.4.2 Objectives

- To maintain and enhance the natural character of the river and its margins.
- To protect and enhance the visual quality of the river and its margins.

8.5 Governance

8.5.1 Issues

- Iwi need to be involved in the decision-making and management of the river and its margins.
- Local communities lack a sense of ownership.
- There are numerous groups and individuals that have an interest in the river, with different aspirations and mandates.

8.5.2 Objectives

- The aspirations and responsibilities of individuals, groups and authorities involved in the administration and management of the Hutt River are provided for and not compromised by any environmental enhancement proposed under the Environmental Strategy.

9 Land Acquisition

In the long-term it is proposed that the remaining privately owned land covered by the Hutt River Environmental Strategy be brought into public ownership or access along and to the river be formalised. See Maps 1 - 3 for the land that is in private ownership.

There are a number of ways in which we can share access to this land:

- **Land swap**

- **Esplanade reserves or strips.** Territorial authorities have the right to require a 20m strip along any river margin from the whole of the land intended to be subdivided. When it is Maori land under the Maori Affairs Act 1953, this does not apply, unless the land to be partitioned is to be held by owners who are not members of the same hapu. Where the Maori Land Court certifies land to be of particular spiritual or cultural significance, this land or any part of it cannot be taken by territorial authorities for reserve purposes.

  Esplanade reserves and strips taken as a condition of subdivision consent help create a corridor along the river, of both recreational and ecological benefit. Esplanade reserves and strips can be taken without compensation from allotments of less than 4 hectares. The District Plans set out the maximum widths of esplanade reserves and strips (see sections **7.3.1** and **7.3.2**).

  Where subdivision is unlikely and, or, public access is a high priority UHCC and HCC can negotiate with landowners to establish esplanade strips.

- **Access strips.** Access strips to esplanade reserves and strips, sought as a condition of subdivision consent, are not affected by lot size. Therefore, it is a very useful method for providing public access. Where public access is a high priority, UHCC and HCC will negotiate with landowners, and purchase or use the reserve contribution to secure an access strip. Each case will be looked at on its merits and will depend on available funds and type of subdivision.

  Generally access strips are fenced and are at least 3m wide. The conditions of access, fencing requirements are negotiated when a council purchases the easement.

- **Purchase, by the Crown, UHCC, HCC or WRC.** Purchase of the river corridor will be considered as a last resort. None of the public agencies are able to commit funding for land purchase. Individual cases will have to be considered on their own merits at the time an opportunity arises.

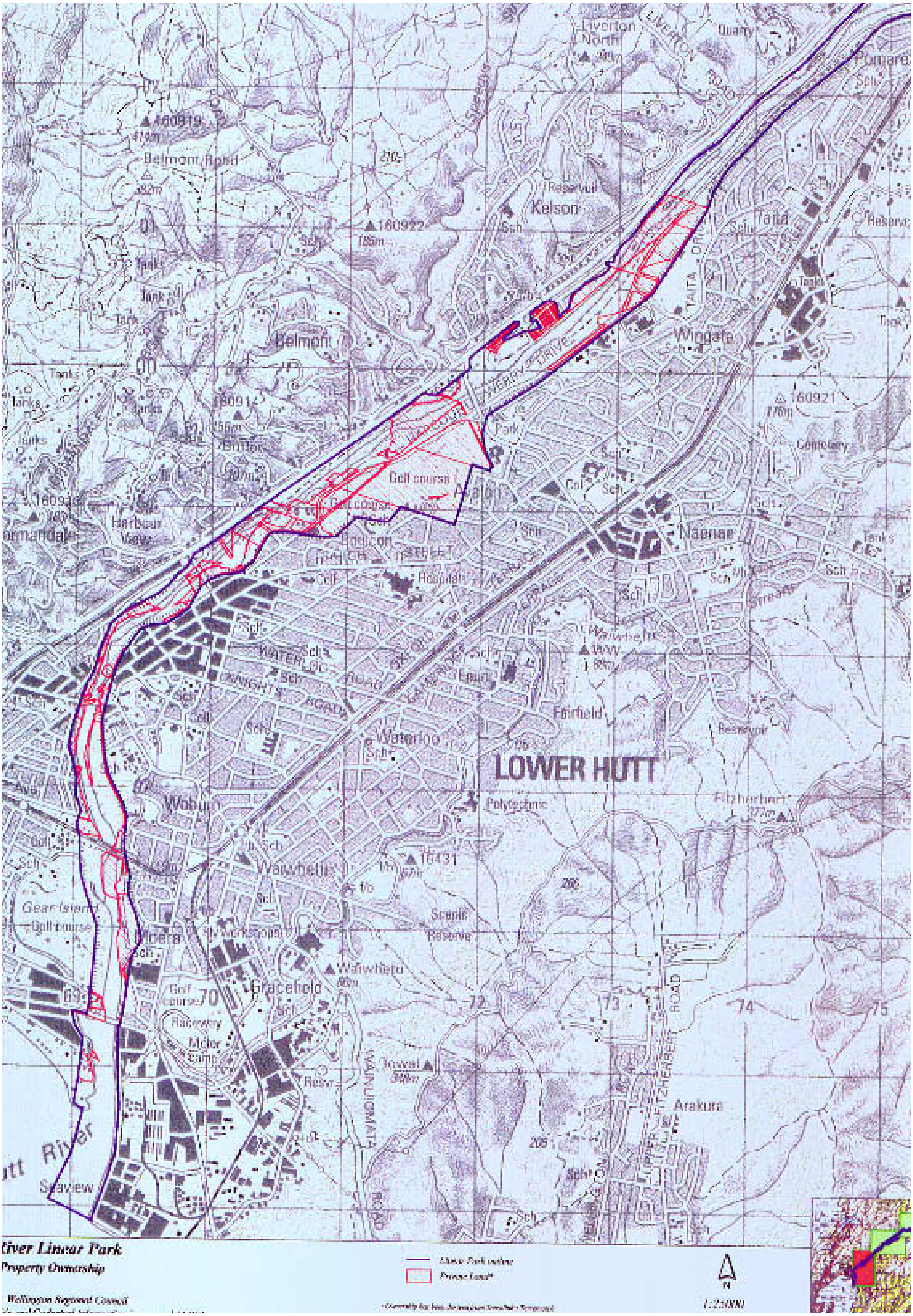
- **Natural heritage sites.** Sites of natural, cultural and archaeological importance are identified in the UHCC and HCC District Planning maps and are protected through various policies and rules.

- **Open space and conservation covenants.** Land use covenants are a voluntary agreement between an agency and a private landowner. They are used to restrict landuses and protect landscape or habitat values on private land. While landowners enter into covenant agreements on a voluntary basis, they are binding on the landowner once they are signed, and are registered against the title in perpetuity.

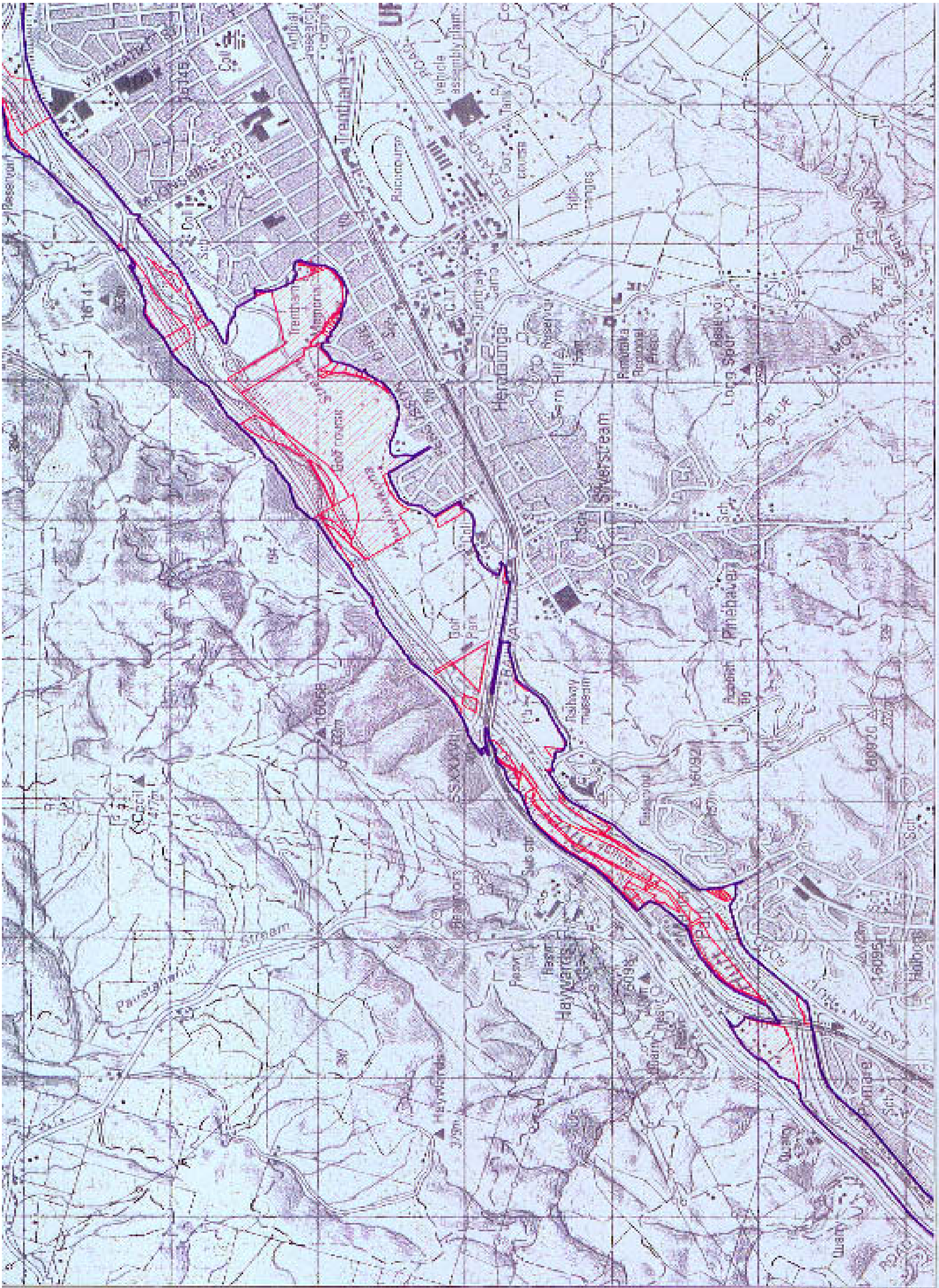
Regional and District Councils, DoC, and the Queen Elizabeth II National Trust all have powers to enter into covenant agreements with landowners to protect areas of conservation value.

Covenants are either established to protect open space values (Open Space Covenants) or conservation values (Conservation Covenants).

- **Land Information Memorandum** (LIM). A LIM is a set of all the legal and resource information relating to a particular property lot. LIMs are held by UHCC and HCC and are available to landowners for a small fee. The Environmental Strategy will be referenced on LIMs for properties covered by its extent. This will help raise landowner awareness of the value of their properties as part of the Hutt River environment.



Liverton North
Pomare
Kelson
Taita
Wingate
Belmont
Belmont Road
Naenae
Avalon
Golf course
Hospital
Waterloo
Fairfield
LOWER HUTT
Polytechnic
Woburn
Waiwhetu
Gracefield
Seaview
Hutt River
Arakura
Fitzherbert
Harbour View
Scenic Reserve
Raceway
Motor Camp
WAINUIOMATA ROAD
FITZHERBERT ROAD
Cemetery
Kelson
liver Linear Park
Property Ownership
Wellington Regional Council
Private Land*
1:25000



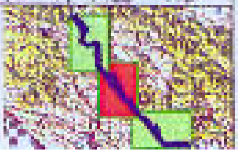
utt River Linear Park

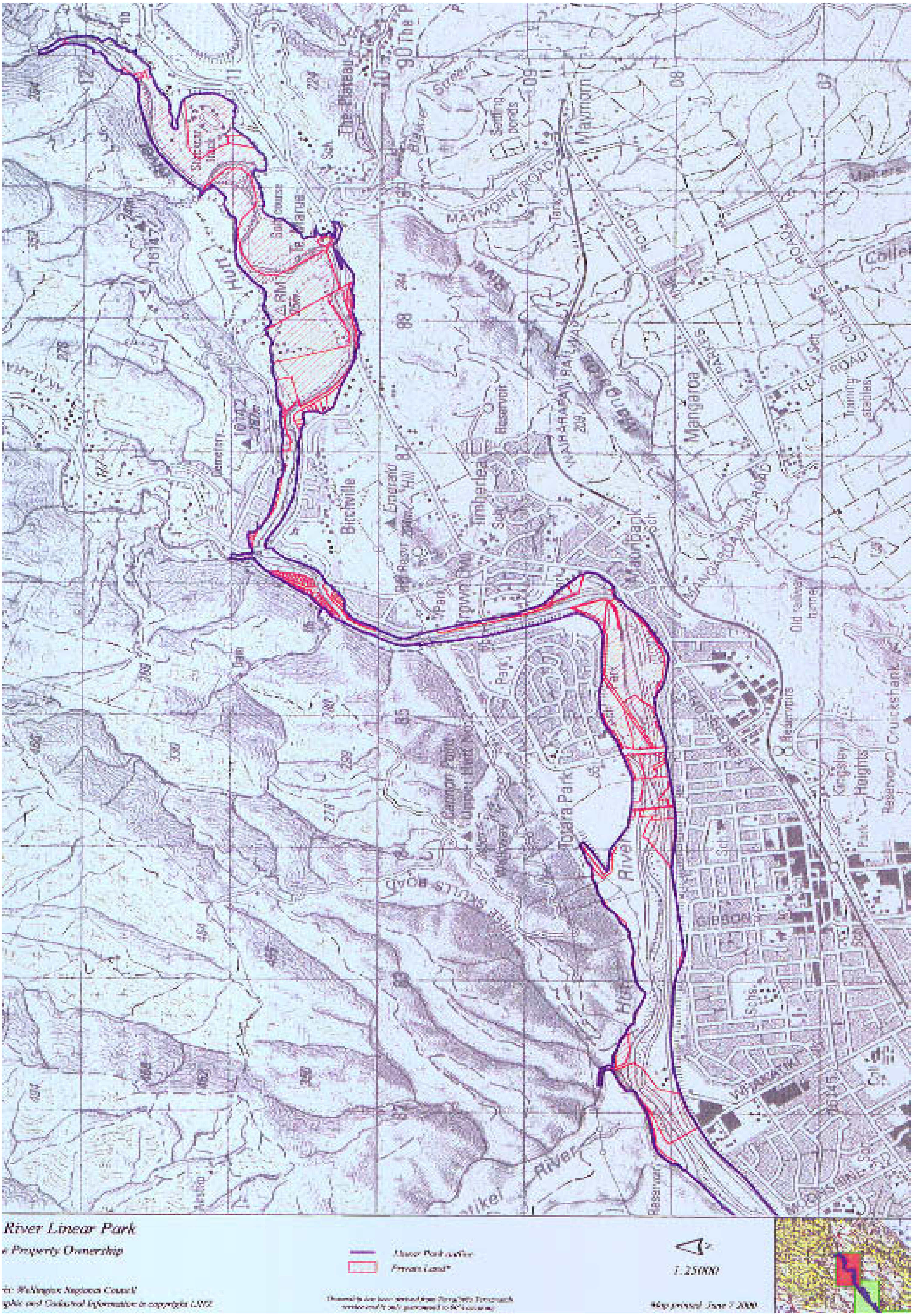
ivate Property Ownership

Linear Park outline

Private Land*

1:25000




River Linear Park
Property Ownership
Private Land*
1: 25000
Map printed June 7 2000
Birchville
Emerald Hill
Timberlea
Maymorn Road
Mangaroa
Totara Park
River
Gibbon
Kingsley Heights
Cruickshank
Training stables
Old railway tunnel

10 Programme and Priority List

The Hutt River Environmental Strategy is a long-term vision, which we envisage being implemented over a 40 year period.

The Environmental Strategy makes recommendations and proposals that involve significant changes to the river and its margins. These changes can only be implemented as and when funds become available.

The following lists give an indication as to the priority for implementation of various general recommendations. The projects underlined are those that should be implemented as a matter of urgency.

10.1 General Recommendations – Major Projects

Priority	Project/Activity
High	• Prepare an Ecological Management Strategy for the Hutt River Catchment • Support Te Ati Awa in reviewing sites and areas of cultural significance • Establish a joint management committee including representatives from HCC, UHCC and WRC and Te Ati Awa • Establish mechanism for ongoing tangata whenua and community input • Trial use of salt tolerant species for use in bank protection works • Prepare a plan to formalise access to and along the whole length of the river • Employ a river ranger • Control car and motorbike access
Medium	• Investigate environmental education opportunities • Remove obstructions to fish passage • Develop protocol with other agencies for managing Hutt River ecosystems • Erect information boards • Upgrade existing tracks • Upgrade existing facilities • Investigate land acquisition options
Low	• Establish heritage trail • Develop unified signage system • Produce recreational guides • Extend tracks and walkways • Provide additional facilities

10.2 Recommendations by Reach

River Mouth/Harbour

Priority	Project/activity
High	• Plant bank edges
Medium	• Develop walkway to Seaview Marina • Improve access to, beneath and across Estuary Bridge
Low	• Create recreation link along Waiwhetu Stream • Provide fishing bays on Estuary Bridge

Ava

Priority	Project/activity
High	• Plant river edge and Black Creek, Te Momi and Sladden Park with species suitable for whitebait spawning habitat
Medium	• Plant berms
Low	• Investigate re-introduction of throughflow to Te Momi Stream

Central Business District

Priority	Project/activity
High	• Remove car parking • Replace willows with specimen trees and other planting
Medium	• Terrace river edges • Create jogging/walking loop tracks
Low	• Strengthen pedestrian access to and from city centre

Avalon

Priority	Project/activity
High	• Rationalise vehicle access
Medium	• Plant berms to screen roads
Low	• Prune willows and create gaps to give views of river

Taita

Priority	Project/activity
High	• Control vehicle access • Investigate ways of involving the local community
Medium	• Provide loop walking tracks • Improve community links with river, steps across stopbanks, marker poles, etc.
Low	• Prune willows and create gaps to give views of the river • Plant the western bank

Taita Gorge

Priority	Project/activity
High	• Install a footbridge across Hull's Creek • Create picnic spaces in the old tree nursery site
Medium	• Investigate feasibility of large scale habitat restoration
Low	• Plant vegetation to screen roads

Heretaunga

Priority	Project/activity
High	• Plant vegetation along eastern bank to screen urban development • Exclude motorised vehicles
Medium	• Open up views of the river from the eastern bank
Low	• Plant the western bank as a backdrop to the river

Moonshine

Priority	Project/activity
High	• Control vehicle access • Prepare detailed design to redevelop Whakatikei River confluence area
Medium	• Open up views of the river from the berms
Low	• Investigate the feasibility and benefits of flooding Barton's Bush

Totara Park

Priority	Project/activity
High	• Investigate the feasibility of large scale habitat restoration
Medium	• Plantings to screen the State Highway • Plantings around the edges of sports fields
Low	• Rock line sections of the western bank

Maoribank

Priority	Project/activity
High	• Plant totara and beech trees
Medium	• Investigate feasibility of creating a community park • Enhance the Maoribank corner
Low	• Investigate feasibility of constructing pedestrian swing bridge at the Maoribank corner

Birchville

Priority	Project/activity
High	• Open up existing easements
Medium	• Plant totara and beech
Low	• Plant river access points

Te Marua

Priority	Project/activity
High	• Formalise access along the western bank • Investigate the feasibility of linking native remnants
Medium	• Create access tracks up to the Kaitoke Regional Park
Low	• secure other reserve land, where appropriate, to create ecological corridors

Kaitoke Regional Park

Priority	Project/activity
High	• Continue planting native species
Medium	• Investigate feasibility of linking native remnants • Establish access trail following the historic logging track
Low	• Investigate the feasibility of constructing a pedestrian swing bridge

11 Funding and Cost Estimates

11.1 Funding

The recommendations and proposals in the Environmental Strategy place no additional obligations upon any of the parties involved. Instead they are actions that can be adopted, if funding is available. The Strategy contains proposals involving significant changes in the river environment. These changes can only be implemented incrementally, as funds and opportunities become available.

The main sources of funding for implementing the Environmental Strategy are:

- **Wellington Regional Council.** The annual maintenance budget for the river includes some small provision for minor enhancement work, including native plantings and vehicle control barriers. In addition, capital work is planned for upgrading the flood protection system of the Hutt River. Some $78 million has been identified for spending over the next 40 years. Of this 5% ($3,900,000) will be allocated as environmental compensation. Funding has also been allocated for a river ranger.

  The Environmental Strategy should be taken into account as flood protection works are designed and implemented. Some of the proposals outlined in this Environmental Strategy have already been included in WRC's annual planning process or the Long-term Financial Strategy. For example, funding research and trialling of salt-tolerant species suitable for whitebait habitat. Establishing a mechanism for ongoing tangata whenua and community input into the management of the Linear Park is substantially covered in the Flood Protection 10 year Plan.

- The Parks and Forests Group also have funding available for certain aspects of the Hutt River Environmental Strategy, for example maintenance and improvement of parts of the Hutt River Trail, as well as the production of recreation brochures. Funding of some of the proposals that fall within Kaitoke Regional Park may also be possible from Parks and Forest's budgets. Funding may also be available from the land purchase reserve fund.

  Further opportunities for funding ecological and community and iwi based projects may come from within the Environment Division budgets.

- **Upper Hutt City Council.** The day-to-day maintenance costs of the areas of the river berms and parks and reserves managed by UHCC are already covered in the council's operational budgets. Any projects in addition to this will have to be assessed through the annual planning process.

- **Hutt City Council.** Maintenance costs of the river and margin areas managed by HCC are already covered in their operational budgets. Other projects will be assessed through the annual planning process. Funding may be available from the reserves purchase and development fund.

- **Other.** Other groups, such as Rotary, often raise funds for enhancing the local environment. The Environmental Strategy contains some ideas for projects that groups such as Rotary and Keep Hutt City Beautiful may wish to either fund or implement.

11.2 Cost Estimates

The Environmental Strategy contains works that:

- Require policy changes with little or no financial implication.
- Can be covered by operational and maintenance budgets. Some of these proposals will involve an increase in operational costs.
- Involve significant investment.

The costs of implementing the basic components of this Environmental Strategy are in the order of $12 million. Maintenance costs are also likely to increase as more and improved facilities are developed. The costs of those projects termed “kite-flying” have not been estimated, as these would be more appropriately calculated by feasibility studies.

12 Contacts[12]

12.1 Environmental Groups

- Wellington Botanical Society, P O Box 10 412, WELLINGTON (contact Pat Enright)
- East Harbour Environmental Association, P O Box 41 029, EASTBOURNE (contact Deidre Beeby)
- Keep Petone Beautiful, 143 The Esplanade, Petone, LOWER HUTT (contact Ruth Hewson)
- Keep Hutt City Beautiful, Hutt City Council, Private Bag 31 912, LOWER HUTT (contact Sandy Beath-Croft)
- Forest and Bird (Upper Hutt Branch), P O Box 40 875, UPPER HUTT (contact Barry Wards)
- Forest and Bird (Lower Hutt Branch), P O Box 31 194, LOWER HUTT (contact Stan Butcher)
- Wellington Conservation Board, P O Box 5086, WELLINGTON (contact Jennie Brown)

12.2 Recreational Groups

- Hutt Valley Harriers, P O Box 36 118, Moera, LOWER HUTT (contact Ian Jacobsen)
- Fantail Hikers, 120 Martin Street, UPPER HUTT (contact Mrs Eagle)
- Rimutaka Harriers, P O Box 40 928, UPPER HUTT (contact Lloyd Fox)
- Trentham United Harriers, P O Box 40 357, UPPER HUTT (contact Bruce Grant)
- Tuesday Trippers, 22 Blue Mountains Road, UPPER HUTT (contact Bill Thompson)
- Upper Valley Tramping Club, P O Box 40 579, UPPER HUTT (contact Virginia Clemas)
- Capital Runners Club, PO Box 1973, WELLINGTON (contact Graham Laws)
- Hutt Valley Tramping Club, P O Box 30 883, LOWER HUTT (contact Kate Brownsward)
- Wellington Tramping and Mountaineering Club, P O Box 5068, Lambton Quay, WELLINGTON (contact Janine Langrick)
- Walking for Pleasure, 8 Green Street, LOWER HUTT (contact Molly Shepherd)
- Hutt Leisure Walking Group, 69 Sunbrae Drive, Silverstream, UPPER HUTT (contact Judy Mallo)
- Positively Slim Walkers, Shop 5, Trafalgar Square, Waterloo, LOWER HUTT (contact Barbara Mobs)
- Women Centred Walking, 77 Hutt Road, Petone, LOWER HUTT (contact Keran Duly)
- Kaumatua Tramping Club, P O Box 30 967, LOWER HUTT (contact Hugh Middleton)
- Hutt River Trail Co-ordinator, Maud Kirk Machinery Ltd, P O Box 30 165, LOWER HUTT (contact Robin Maud)
- Hutt Valley Marathon Clinic, P O Box 30 926, LOWER HUTT (contact Susan McLennan)
- Hutt Valley Orienteering Club, 70 Field Street, UPPER HUTT (contact Philip Calvert)
- Hutt Multisports Club, P O Box 31 221, LOWER HUTT (contact Brian Marriner)
- Triathlon Development Squad, c\- 73 Kanpur Road, Broadmeadows, WELLINGTON (contact Stuart Fraser)

[12] Current at February 2000

- Waimarie Croquet Club Inc., 6 St Andrews Grove, LOWER HUTT (contact Roland Crone)
- Upper Hutt Rugby League, P O Box 40 439, UPPER HUTT (contact Tyrone Paikea)
- Tararua Upper Hutt United Football Club, P O Box 40 788, UPPER HUTT (contact Brian Wood)
- Hutt Valley Chargers American Football Club Inc., c\- 23 Corrondella Grove, Belmont, LOWER HUTT (contact Michael Wilson)
- Tararua Sports Club, P O Box 40 092, UPPER HUTT (contact John Wiffin)
- Rimutaka Rugby Club, P O Box 40 889, UPPER HUTT (contact Mitch Fowell)
- Fraser Park Sports Association, P O Box 44 039, LOWER HUTT (contact The Secretary)
- Riding for the Disabled Association Inc., P O Box 48 129, LOWER HUTT (contact Adrian Manthel)
- Combined Horse Clubs of Upper Hutt, 23 Tacoma Drive, Totara Park, UPPER HUTT (contact Thelma Mallot)
- Te Marua Pony Club, 38 Birch Terrace, UPPER HUTT (contact Sharon Clouston)
- Upper Hutt Pony Club, P O Box 40 472, UPPER HUTT (contact Joe Wootton)
- NZ Riding Club, 1142C Maymorn Road, UPPER HUTT (contact Glen Fitzgerald)
- Belmont Pony Club, Hill Road, Belmont, LOWER HUTT (contact Marlene Walsh)
- Te Ati Awa Horse Treks, P O Box 36 111, Moera, LOWER HUTT (contact Vern Winitana) Commercial Operator
- Shandon Golf Club, P O Box 38 104 ,Petone, LOWER HUTT (contact Mark O'Connor)
- Te Marua Golf Club, P O Box 40 160, UPPER HUTT (contact Max Kinsey)
- Hutt Golf Club, P O Box 30 113, LOWER HUTT (contact John Spraggs)
- Manor Park Golf Club, P O Box 30 083, LOWER HUTT (contact Ron Kyle)
- Premier Golf Range Ltd., County Lane, Silverstream, UPPER HUTT (contact Ewen Means)
- Wellington Golf Club, Golf Road, Heretaunga, LOWER HUTT (contact David Grant)
- Boulcott Golf Club, P O Box 30 334, LOWER HUTT (contact Jeanette Blockley)
- Wellington Fly Fishers' Club, P O Box 9236, WELLINGTON (contact John Gamble)
- Hutt Valley Course Fishing Club, c\- 1 Lincoln Grove, WAINUIOMATA (contact Alan Pool)
- Hutt Valley Canoe Club, P O Box 38 389, WELLINGTON (contact Alan Bell)
- Kupe Canoe Club, PO Box 3768, WELLINGTON (contact Dave Alderton)
- Victoria University Canoe Club, c\- Victoria University Students Association, P O Box 600, WELLINGTON (contact Andrea Stevens)
- NZ Recreational Canoeing Association, 460 Evans Bay Parade, Evans Bay, WELLINGTON (contact Sarah McRae)
- Rafting operator, Riverslea Lodge, Gorge Road, RD 1, OTAKI (contact Phil Henry) Commercial Operator
- Rafting operator, Top Adventures, 453 Hutt Road, LOWER HUTT (contact Warwick White) Commercial Operator
- Rafting operator, Venture Bound Tours, P O Box 2026, MASTERTON (contact Gavin Osborne) Commercial Operator
- Hutt Valley Mountain Bike Club, P O Box 44 174, LOWER HUTT (contact Julie Booker)
- Wellington Mountain Bike and Cycle Touring Club, 124 Rakau Road, Hataitai, WELLINGTON (contact Steven White)

- Wellington Veteran Cycling Club, 52 Golders Road, UPPER HUTT (contact Rex Dowling)
- BMX Club, 63 Oroua Street, EASTBOURNE (contact Rosemary Young)
- Hutt Valley Cycling Club, 19 Cyprus Drive, Maungaraki, LOWER HUTT (contact Debbie Rothsay)
- Cycle Aware (Hutt Group), 3 Channel Grove, Waterloo, LOWER HUTT (contact Brendon Marshall)
- Cycle Aware, P O Box 11 964, WELLINGTON (contact Robert Ibell)
- Akatarawa Recreation Action Committee, P O Box 48 176, Silverstream, UPPER HUTT (contact Andy Cockroft)
- Hutt Valley Motorsport Club, P O Box 38 874, LOWER HUTT (contact Marie Breden)
- Seaview Marina, P O Box 33 230, LOWER HUTT (contact Mike Solly)
- Wellington Stock Car Society, P O Box 40 917, UPPER HUTT (contact Joan Tinsley)
- Avalon Dog Obedience Club, P O Box 31 224, LOWER HUTT (contact Carol Stopford)

12.3 Other Community Groups

- Upper Hutt Promotions Group, Upper Hutt City Council, Private Bag 907, UPPER HUTT (contact Christine O'Leary)
- Hutt 2000, P O Box 30 233, LOWER HUTT (contact Michael Warnock)
- Heretaunga Rotary Club, P O Box 48 005, Silverstream, UPPER HUTT (contact Graham Quirke)
- Rotary Club of Upper Hutt, P O Box 40 131, UPPER HUTT (contact Jeremy Wright)
- Eastern Hutt Rotary Club, P O Box 35 048, Naenae, LOWER HUTT (contact Milton Allwood)
- Hutt Rotary Club, P O Box 30 118, LOWER HUTT (contact Les Pearce)
- Petone Rotary Club, P O Box 33 381, Petone, LOWER HUTT (contact John Stevens)
- Rotary Club of the Hutt Valley, P O Box 30 955, LOWER HUTT (contact Kevin Stratton)
- Stokes Valley Rotary Club, P O Box 37 074, Stokes Valley, LOWER HUTT (contact Alan Thorburn)
- Western Hutt Rotary Club, P O Box 38 258, LOWER HUTT (contact Richard Beaufort)
- Combined Probus Club of Hutt, c\- 29 Myrtle Street, LOWER HUTT (contact The Secretary)
- The Ladies Probus Club of Eastern Hutt, c\- 15 Parnell Street, LOWER HUTT (contact The Secretary)
- The Mens Probus Club of Eastern Hutt, 390 Stokes Valley Road, Stokes Valley, LOWER HUTT (contact The Secretary)
- The Probus Mens Club of Lower Hutt, c\- 39 Kebbell Grove, LOWER HUTT (contact The Secretary)
- Alicetown Residents' Association, 44 Tama Street, Alicetown, LOWER HUTT (contact Jim Sutherland)
- Belmont Ratepayers' Improvement Association, 92 Park Road, Belmont, LOWER HUTT (contact Graeme Ross)
- Kelson Community Centre, 5A Timaru Grove, Kelson, LOWER HUTT (contact Judy Watson)

- Korokoro Residents' Association, 34 Titiro Moana Road, Korokoro, LOWER HUTT (contact Jim and Ruth Mansell)
- Manor Park Residents' Association, 6 Ford Road, Manor Park, LOWER HUTT (contact Vicky McCabe)
- Maungaraki Community Association, 9 Jacaranda Grove, Maungaraki, LOWER HUTT (contact Geoff Saunders)
- Western Ward Committee, 47 Pomare Road, Belmont, LOWER HUTT (contact Jill Berridge)
- Central Ward Committee, 4 Cudby Street, LOWER HUTT (contact Michael Rumble)
- Eastern Ward Committee, 11 Haig Street, Waterloo, LOWER HUTT (contact Jan Patterson)
- Petone Community Board and Central Ward Committee, c\- Hutt City Council, Private Bag 31 912, LOWER HUTT (contact Jane Perry)
- Northern Ward Committee, P O Box 37 263, Stokes Valley, LOWER HUTT (contact Fred Allen)

13 Species Lists

13.1 Species suggested for use adjacent to the Hutt River

Dry River Terraces

Common name	Latin name
• Totara	*Podocarpus totara*
• Hard Beech	*Nothofagus truncata*
• Black Beech	*Nothofagus solandri*
• Kamahi	*Weinmannia racemosa*
• Kanuka	*Leptospermum ericoides*
• Northern Rata	*Metrosideros robusta*
• Toetoe	*Cortaderia toetoe*

Moister River Flats

Common name	Latin name
• Tawa	*Beilschmedia tawa*
• Rimu	*Dacrydium cupressinum*
• Kahikatea	*Podocarpus dacrydioides*
• Miro	*Podocarpus ferrugineus*
• Matai	*Prumnopitys taxifolia*
• Broadleaf/Kapuka	*Griselinia littoralis*
• Fivefinger	*Pseudopanax arboreus*
• Ti Kouka/Cabbage Tree	*Cordyline australis*
• Pigeon Wood/Porokaiwhiri	*Hedycarya arborea*
• Pukatea	*Laurelia novae-zelandiae*
• Black Maire	*Nestegis cunninghamii*
• Kohekohe	*Dysoxylum spectabile*
• Kowhai	*Sophora chathamica*
• Mahoe	*Melicytus ramiflorus*
• Wineberry/Makomako	*Aristotelia serrata*
• Tree Fuschia/Kotukutuku	*Fuchsia excorticata*
• Karamu	*Coprosma robusta*
• Kaikomako	*Pennantia corymbosa*
• Manuka	*Leptospermum scoparium*
• Lowland Ribbonwood	*Plagianthus betulinus*
• Toetoe	*Cortaderia toetoe*

Damper River Margins

Common name	Latin name
• Flax	*Phormium tenax*
• Toetoe	*Cortaderia toetoe*
• Sedges	
• Rushes	
• Carex	*Carex sp.*
• Ferns	

13.2 Species traditionally used by Maori

Common name	Latin name
• Raupo	*Typha orientalis*
• Tree fern	*Cyathea sp.*
• Nikau	*Rhopalostylis sapida*
• Kouka	*Cordyline australis*
• Pikopiko	
• Korau	
• Keikei	*Freycinetia banksii*
• Aruhe (bracken fern)	*Pteridium esculentum*

13.3 Species that would have been present

Based on suggestions made by Geoff Park.

Common name	Latin name	Best time to collect seeds
• Rimu	*Dacrydium cupressinum*	
• Miro	*Prumnopitys ferruginea*	
• Northern Rata	*Metrosideros robusta*	February – April
• Totara	*Podocarpus totara*	April – May
• Ti Kouka/Cabbage Tree	*Cordyline australis*	February – March
• Nikau	*Rhopalostylis sapida*	
• Matai	*Prumnopitys taxifolia*	
• Hinau	*Elaeocarpus dentatus*	
• Akiraho	*Olearia paniculata*	November – January
• Heketara	*Olearia rani*	
• Kowhai	*Sophora chathamica*	July – August
• Kaikomako	*Pennantia corymbosa*	January – May
• Milk Tree	*Streblus banksii*	December –March
• Matipo	*Pittosporum tenuifolium*	
• Tarata	*Pittosporum eugenioides*	
• Mapou	*Myrsine australis*	
• Kakahi	*Weinmannia racemosa*	
• Karamu	*Coprosma robusta*	March – April
• Lancewood	*Pseudopanax crassifolius*	
• Flax	*Phormium tenax*	January – March
• Toetoe	*Cortaderia toetoe*	
• Five-Finger	*Pseudopanax arboreus*	August – February
• Kohekohe	*Dysoxylum spectabile*	October – mid November
• Wharangi	*Melicope ternata*	October – February
• Tawa	*Beilschmedia tawa*	April – June
• Kawakawa	*Macropiper excelsum*	February – March
• Mamuka/ Black Tree Fern	*Cyathea medullaris*	
• Silver Tree Fern/Ponga	*Cyathea dealbata*	
• Native Sand Sedge	*Carex pumila*	
• Pingao	*Desmoschoenus spiralis*	

Common name	Latin name	Best time to collect seeds
• Taupata	*Coprosma repens*	January – February
• Ngaio	*Myoporum laetum*	March – April
• Karaka	*Corynocarpus laevigatus*	December – February

Food sources for birds

• Wood pigeons	Miro, Kohekohe, Totara, Nikau
• Bellbirds and tui	Honeyeaters – flowering plants needed all year round therefore a variety of species is needed

Most important tree species for birds are miro, nikau and kahikatea.

13.4 The use of willows as a flood protection method

The use of willows in riparian planting is one that has raised considerable debate over many years.

Put simply, we have used willows in the past as a management tool, for example, to help minimise bank erosion. We have used certain characteristics of willows (such as their quick growth and ability to regrow after being layered or tethered) for managing riverbank edges. If we want to stop using willows within our river margins, then we need to change our management approach. We could look at the way in which we manage the river margins and whether our current approach is the most appropriate. We should also look into the suitability of kahikatea, totara and mahoe for using as replacements for willows.

The following reasons support the use of willows rather than native species:

- Native plant species cannot replace willows, as front line bank edge protection in either the short or long-term. Native species may provide sufficient bank edge protection in less modified catchments. However, flood flow volumes and velocities in the Hutt River corridor have been significantly increased because the river has been confined within a much narrower channel. The stronger bank protection provided by the willows is needed to counter these increased velocities and volumes.

- The interwoven root structure of willows makes them a superior form of bank edge protection. The root mass holds willows in place, protecting the bank edge in flood flows that would undermine large established indigenous trees.

- Also, unlike most native species, willows can be layered when they become old or ineffective. This involves partly cutting the trunk so that the tree lays in the edge of the river flow. This reduces flow and builds up silts along the river edges, allowing the willows to sucker new root systems and re-establish themselves. This is very useful for bank edge protection.

- Willows are faster growing and significantly cheaper than native species, allowing them to be used as sacrificial bank edge protection that can be replaced relatively quickly. In contrast the loss of native species planted for bank edge protection would be a much greater setback because of the time and cost involved in replacing them.

- Willows do provide limited habitat, as a source of food, shelter and shade. This is very limited as willows are generally planted in such a way that a "monoculture" effect is created and biodiversity is significantly reduced.

These arguments are given for using willows; however, there are ways of reducing the impacts of willows:

- A native understorey can be established beneath willows. This can develop naturally or be planted.

- Use sterile willow clones so that they do not spread and become a "weed" as crack willows (*Salix fragilis*) have done extensively in the past along other rivers in the Wellington Region.

- Use *Matsudanae moutere* or similar clones. When fully grown Matsudanae stand up to 10m tall with around 1.7m clearance between the ground and the lowest overhanging branches. This provides access through the willows to the river.

- Leave gaps or breaks in the willow band of up to 10m for access purposes.

- Willows are not needed in areas where the river edge has been rock lined; where the river hits a natural hard surface (for example, rock faces); or on the inside corner of a permanent river bend where water velocities are reduced. These areas provide opportunities for either open space or native vegetation to be extended to the river's edge.

- Generally only the first 15m of vegetation buffer needs to be willows. Native species can be planted behind this frontline 15m, to give the required buffer width, for example, if a 30m vegetation buffer is needed, then the first 15m have to be willows, but the remaining 15m can be natives.

Limited trials with native species (particularly in the saline reaches of the rivers where willows do not grow well) have been undertaken in the past. In most cases natives have not fared well, for a variety of reasons. The natives planted at Elbow Bend (upstream of Maoribank on the Hutt River) were all washed out during a flood soon after they were planted. We did have limited success with salt tolerant sedges and grass trials by Sladden Park where timber groynes provided bank edge protection.

Unless a change in approach to bank edge management happens then the use of native tree species along the edge of the banks is restricted within the Hutt River environment.

13.5 Possible substitutes for willows in erosion control

The Wellington Botanical Society has suggested the following native species as being possible alternatives to willows:

Species	Comments
• *Carex secta* (Makura, Purei)	
• *Carmichaelia odorata* (broom)	
• *Cyperus ustulatus* (giant umbrella sedge)	
• *Pseudopanax arboreus* (fivefinger)	
• *Phormium tenax* (flax)	
• *Fuschia excorticata* (fuschia)	Prone to browsing
• *Kunzea ericoides* (kanuka)	Part of natural succession on river flats. Essential oils help deter browsing
• Coprosma robusta (karamu)	
• *Pittosporum tenufolium* (kohuhu)	
• *Hebe stricta* (koromiko)	
• *Sophora microphylla* (kowhai)	
• *Cyathea medullaris* (mamuka)	Prone to browsing
• *Plagianthus regius* (manuta)	
• *Leptospermum scoparium* (manuka)	Part of natural succession on river flats. Essential oils help deter browsing
• *Nothofagus spp* (beech)	Useful at higher altitudes not browsed much
• *Schefflera digitata* (pate)	Prone to browsing when young
• *Brachyglottis repanda* (rangiora)	
• *Typha orientalis* (raupo)	
• *Cortaderia toetoe* (toetoe)	
• *Podocarpus totara* (totara)	Part of natural succession on river flats. Essential oils and sharply pointed leaves help deter browsing. Slow growing
• *Coriaria arborea* (tutu)	Browsed by goats
• *Aristotelia serrata* (wineberry)	

14 Recreational Activities and their Requirements

Walking / Running

Requirements
- Safe formed route along rivers edge
- Track free from mud and deep puddles
- Exclusion of motorised vehicles in most areas
- High quality landscape, including resting and viewing points
- Quietness in most areas
- Room to pass where traffic is encountered
- Some facility provision – especially toilets
- Personal safety provisions, especially in areas where views are restricted

Swimming

Requirements
- Easy access to the water
- Development and maintenance of a range of swimming holes (between Kennedy Good Bridge and Kaitoke Regional Park)
- Some facility provision – including parking, rubbish bins, toilets
- High aesthetic quality and high water quality
- Information distribution about any new swimming holes

Passive

Requirements
- Walking access to river side
- Some vehicle access to river berms
- High landscape quality
- Visual seclusion from developments
- Facility provision – rubbish bins, picnic areas and furniture, toilets and some barbecue sites

Rafting

Requirements
- Water and a minimum of gravel beaches
- Suitable entry and exit points
- Picnic and toilet facilities
- Variety in river landscape

Kayaking

Requirements
- Navigable water through a range of water conditions
- No gravel beaches (formed by cross-blading)
- High water quality
- Some facilities – toilets, rubbish bins, car parking
- Easy access to river
- Removal of unnecessary solid artificial projections into the river

Jet-Boating

Requirements
- Water of sufficient depth
- Continued access to facilities
- Ability to excavate a slalom course through the river gravel and to establish a small weir approximately 1km downstream of Kennedy Good Bridge
- Access to the berms for spectators
- Launching point for jet boats

Fishing

Requirements
- Fish and habitat management for fish
- Opportunities to anchor lines from Estuary Bridge for saltwater fishing
- Little river traffic
- Access to water of high quality
- Good landscape quality
- As little water abstraction as possible
- As little bed disturbance as possible

Sports Fields

Requirements
- Direct liaison with appropriate land managers
- High standard of resource maintenance
- Well-drained sports fields
- Facilities and buildings - toilets, club rooms, gyms

Cycling

Requirements
- River length off-road cycle track with suitable all-weather surface of an appropriate width and few impediments, for instance, vehicle barriers
- Appropriate publicity

Horse Riding

Requirements

- Designation of areas for horses (bylaw currently prohibits riding on stopbanks and berms)

Trail Biking

Requirements

- Currently prohibited by bylaw and actively discouraged

14.1 Guidelines for water based recreation brochures

General

- Describe the river and opportunities available
- Raise matters of safety, flooding, litter and consideration for others
- List contact addresses of the river managers and significant clubs
- Describe local and regional transport routes to and along the river
- List local crèche facilities
- Describe opportunities for the disabled

Kayaking

- Describe kayaking clubs, competitions, casual use, seasonal variations in water levels, and dangers
- What type of kayaking is available – flatwater, training, slalom
- What level of skill is required for each reach
- Where the main access points are
- What facilities there are and where they are available
- Where equipment can be hired
- Who to contact for specific enquiries

Rafting

- What the opportunities are
- How rafting can be combined with other activities, for instance, picnics
- What equipment is required and where it can be hired/obtained
- What skills are needed
- Safety requirements
- Details of the different sections most appropriate for rafting and the length of time each section takes
- If a race is to be organised – what procedures must be followed and why
- Where advice can be sought
- Instructions for building rubber tube rafts

Swimming

- What makes the river so attractive for swimming
- Water quality
- Where the main swimming holes are
- What facilities there are and where
- Safety reminders
- Advice regarding the creation of artificial swimming holes

14.2 Guidelines for riverside recreation brochures

General

- Describe the history of the river, the significance of flood control schemes, and the ecological features of the area
- Describe the river area and opportunities available
- Raise matters of safety, flooding, litter and consideration for others
- List contact addresses of the river managers and significant clubs
- Describe local and regional transport routes to and along the river
- List local crèche facilities
- Describe opportunities for the disabled
- Facilities for the disabled

Walking

- What the walking opportunities are and what makes them attractive
- Where the major walking routes are where they start and how long they take
- Parking availability
- Difficulty and time required
- Loop walks and special points of interest
- What facilities there are and where

Running

- What makes the river area suitable for running
- Where the circuits are and the distances
- What the surfaces are like

Cycling

- What the opportunities are
- Cycling routes and quality of track surfaces
- Safety considerations for vehicles and pedestrians

Picnics

- Location of playgrounds, picnic areas and parks

Horse Riding

- Detail suitable areas for riding
- List pony clubs
- Requirements of river managers

Skate Boarding and Roller-Skating

- Location of all facilities
- Most suitable areas for casual use
- Rules and regulations

Trail biking

- Outline WRC regulations and list alternative venues

15 SELECTED BIBLIOGRAPHY

The Flood Protection Group has produced several detailed reports as part of the *Hutt River Flood Control Scheme Environmental Investigations*:

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- Ecological (WRC/RI-T-92/32)
- Sociological (WRC/RI-T-92/31)
- Maori (WRC/RI-T-92/27)
- Planning and Land Use (WRC/RI-T-92/30)
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16 Glossary

Active recreation Recreation that is energetic and usually involves gaining skills for its enjoyment.

Amenity value Those natural and physical qualities or characteristics of an area that contribute to people's appreciation of its pleasantness, cultural and recreational attributes.

Animal pest Any introduced animal whose presence or activities result in significant detrimental effects on indigenous plants, animals or ecological processes.

Aquifer A geological formation or layer of rock or soil that is capable of yielding water to a bore, well or spring.

Berm Low-lying flat land adjacent to the river bank. Berms are a natural extension to the main channel and carry water during floods.

Biodiversity The variability among living organisms from all sources including terrestrial and aquatic ecosystems and the ecological complexes of which they are a part. This includes diversity within species, between species and of ecosystems.

Cultural landscape A landscape which has been influenced or changed by humans, and includes historic and spiritual values and landuse practices.

Diadromous Fish that migrate between fresh and salt water, often in relation to spawning.

Ecological corridor A strip or patch of habitat between otherwise isolated "islands" of habitat (such as reserves, forests, parks, etc.) that enables the species living in those islands to pass from one island to another. Their need to do so may include feeding, breeding, avoiding threats, or because the decreasing size of their habitat has reduced their number below a minimum viable population level.

Corridors may function as conduits (allowing a passage from one habitat to another), provide habitats in their own right, or act as a barrier to other organisms living in the area through which a corridor passes (for example, hedges are barriers to livestock). They may connect like habitats with like promoting the survival of similar species or they may connect unlike habitats, causing interactions between dissimilar species.

Ecological district This is one of the main levels used for the ecological classification of land. New Zealand has been divided into 268 ecological districts. They have been delineated according to geological, topographical, climatic and biological features and processes, which interrelate to produce a characteristic landscape and range of biological communities.

Ecology The study of organisms in relation to one another and to their surroundings.

Eco-sourcing Using indigenous species propagated from the same ecological district or locality for revegetation or restoration work.

Ecosystem An interacting system of living and non-living parts such as flora, fauna, sunlight, air, water, minerals and nutrients. Ecosystems may be small or large, simple or complex. They range in size from small freshwater ponds to the earth itself.

Enhancement An increase in the quality or quantity of some characteristic of a site or area.

Environment Includes:

- Ecosystems and their constituent parts.
- All natural and physical resources.
- The health, safety, amenity and cultural values of people and communities.

Environmental education A multi-disciplinary approach to learning that develops the knowledge, awareness, attitudes, values and skills that will enable individuals and the community to contribute towards maintaining and improving the quality of the environment.

Esplanade reserve A local purpose reserve usually 20m wide, vested in the territorial authority or in the Crown, with the purpose of protecting conservation values, enabling public access to and along a river and recreational use where this is compatible with conservation values. Usually created as a result of subdivision of land. See also marginal strip.

Estuary	A broad tidal area associated with a river where there is a mixing of saline and freshwater. The Hutt Estuary is a zone of deposition, as the river discharges more sediment than can be removed by tidal currents and wave action.
Fauna	Animal life of a given place or time.
Fishery	One or more fish species of freshwater fish that can be treated as a unit for the purposes of conservation or management.
Flood mitigation works	Any structure or work that is used to mitigate the adverse effects of flooding, such as stopbanks, banks protection structures, willows and groynes.
Floodplain	The flat or gently sloping part of the Hutt Valley that is, or has the potential to be, covered with flood waters when the river overflows during a flood.
Flora	Plant life of a given place or time.
Foreshore	Shore between high and low watermarks at mean spring tides.
Freshwater fish	Species of finfish and shellfish that spend all or part of their life histories in freshwater.
Groyne	Structures built perpendicular to the river bank to push fast flowing water away from the bank edge. They are intended to halt erosion and maintain river alignment.
Habitat	The environment that a particular species or group of species lives in. It includes the physical and biotic characteristics that are important to the species concerned.
Hapu	Subtribe (see iwi)
Historic Place	Any land, building or structure that forms part of the historical and cultural heritage of New Zealand and are within the territorial limits of New Zealand. Includes anything fixed to this land.
Indigenous	Plants and animals found naturally in New Zealand.
Invertebrate	An animal without a backbone or spinal column. Insects, spiders, worms and slaters are examples of invertebrates. Invertebrates make up the vast majority of all animal species; only fish, amphibians, birds and mammals are not invertebrates.
Iwi	Tribe or people
Iwi authority	The authority that represents an iwi and that is recognised by that iwi as having authority to do so.
Kaitiakitanga	Exercise of guardianship, as defined by the tangata whenua of an area in accordance with tikanga Maori in relation to natural and physical resources; and includes the ethic of stewardship.
Kaupapa	An abstract word with many meanings. It is generally used in the sense of “vision”, “philosophy”, “cause”, “idea” or “theme”.
Landscape	The landscape is a result of natural and cultural processes on or near the surface of the earth.
Landscape character	The visual expression of the elements which compromise the landscape and give it identity and distinctiveness.
Landscape feature	A clearly distinct and spatially restricted piece of landscape normally experienced from beyond its boundaries.
Mahinga kai	An area where Maori traditionally gather or gathered food.
Mana	Prestige, power or authority.
Mana whenua	Customary authority exercised by an iwi or hapu in an identified area.
Marginal strip	Land reserved from sale along waterways greater than 3m wide. Also refers to land acquired in exchange for marginal strips. Marginal strips are usually 20m wide. They move automatically if the boundary of the adjacent water body moves either naturally or as a result of human activity.
Mauri	Life essence present in all things.

Natural and physical resources	Includes land, water, air, soil, minerals and energy, all forms of plants and animals and all structures.
Natural character	The expression of the relationship between elements that are a result of natural processes.
Natural resources	Include plants and animals and their habitats, landscape and landforms, geological features, and systems of interacting living organisms and their environment.
Natural value	Those values associated with natural character, plants, animals, habitats and ecosystems.
Passive recreation	Requires little expenditure of energy, time and money and involves few skills. Facilities are not essential although they may be provided.
Pa tuna	Traditional method that tangata whenua use to trap and store eels in a river or stream.
Rahui	A restriction on access, prohibition.
Recreation	The way in which a person chooses to spend time that is free and is apart from work and other tasks involved in providing and maintaining a livelihood.
Recreational focal point	A popular place or area where people tend to gather for recreational purposes such as a swimming hole or easily accessible beach.
Recreation link	Tracks linking places and other tracks, for example walking tracks along the Waiwhetu Stream linking with the Hutt River Trail.
Rehabilitation	The return of a degraded community to a condition that is not identical to the original.
Restoration	The restoration of a particular biotic community to a former condition.
Rohe	The traditional geographic area of influence of an iwi, hapu, or whanau.
Species	A group of organisms capable of interbreeding freely with each other but not with members of other species.
Specimen tree	A tree standing on its own, usually large and of good shape and form.
Sustainable management	Managing the use, development, and protection of natural and physical resources in a way or at a rate, which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety while: a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations, b) safe-guarding the life-supporting capacity of air, water, soil, and ecosystems, and c) avoiding, remedying, or mitigating any adverse effects of activities on the environment. In practice sustainable management means: not wasting resources, taking care of land, water and air, looking at the needs of future generations, avoiding or fixing any harmful effects, and considering the long-term impacts of our decisions.
Tangata whenua	The iwi, or hapu, that holds mana whenua over a particular area.
Tikanga Maori	Maori customary values and practices.
Taonga	Prized possession, property.
Tourism	The activity of people visiting an area; operation of tours as a business; and the provision of things and services that attract tourists.
Urupa	Cemetery, burial ground.
Visual connection	A gap left or created in vegetation to give views of significant visual features. May also include careful placement of vegetation or structures to frame a view or to lead your eye between significant visual features.
Waahi Tapu	A sacred site. These are defined locally by the hapu and iwi, who are the kaitiaki for the waahi tapu.
Waterbody	Freshwater in a river, lake, stream, pond, wetland, or aquifer or any part thereof.

Wetland Permanently or intermittently wet areas, shallow water, and land margins that support a natural ecosystem or plants and animals that are adapted to wet conditions. They include swamps, bogs, estuaries, braided rivers and lake margins.

Whanau Extended family.