

Waterways
& Wetlands

Nga Arawai Repo

Vision

2000 - 2040

The Styx

Waterways,
Wetlands and
Surface Water

Ko Te Moe Moea Tumanako
no nga ra o mua
Te Awa Purakaunui me
Nga Arawai Repo

Community Planning for the Future

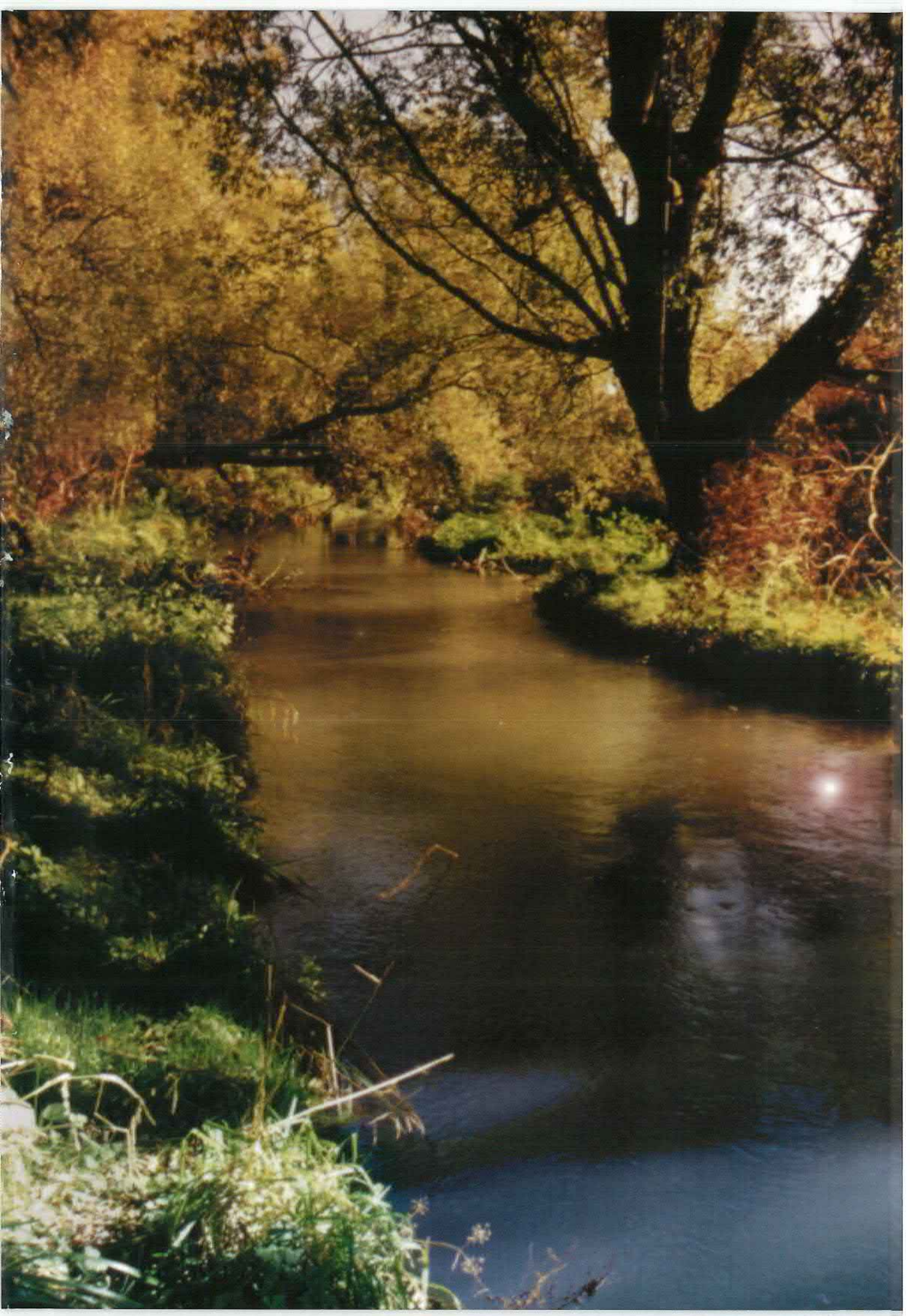
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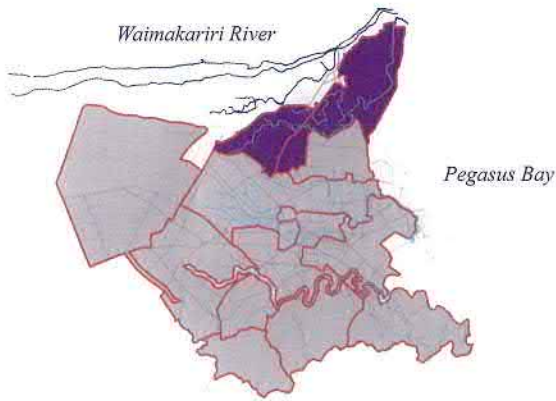


CHRISTCHURCH
CITY COUNCIL · WATER

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Location Map

■ Project areas 3 and 4, Styx catchment

The Need for a Plan

The city's waterways and wetlands are sustainably managed in accordance with the Resource Management Act (1991) and the objectives and policies in the City Plan. Part VIIA of the Local Government Act (1974) also requires the Christchurch City Council to develop a long-term financial strategy for the management of drainage and waterways and wetlands within its locality.

To address these requirements, the Water Services Unit has developed an Asset Management Strategy that uses a values based approach (landscape, drainage, ecology, recreation, culture, heritage) to manage the city's surface water environment, together with the development of visions based on these values. Financial considerations and levels of service can then be determined from these long term visions and aspirations.

To assist in the development of the long-term visions, the city has been divided into 14 project areas based on the nature of the land and water system, land-uses and the make-up of the communities. The Styx River and its associated tributaries and wetlands comprise areas 3 and 4. These areas are shown in purple on the adjacent map.

The Strategy has been adopted by Council.

The Styx River,
associated tributaries
and wetlands.....



**What will they be like in
40 years' time?**

The Process to Date

There has been extensive community consultation and participation over the last two years. It began with the Styx River Happening at Spencer Park (March 1999), followed by workshop and focus group discussions. Community interest in the Styx resulted in the formation of the 'Guardians of the Styx' Charitable Trust and another group to research the local European history. There has also been extensive consultation with Tangata Whenua. The results from these discussions and a timeline of events are outlined in Appendices 1 & 2.

A number of expert investigations were then undertaken, the results of which are available at the Canterbury Public Library, service centres and the Water Services Unit, Civic Offices. These documents are listed in Appendix 3.

Consultation and research have highlighted both the concerns and the opportunities presented by the Styx and its environs. From these issues, a series of interrelated visions have evolved. These visions have been presented to the Parks and Recreation Committee, the Shirley/Papanui, Fendalton/Waimairi and Burwood/Pegasus Community Boards and the Guardians of the Styx Community Group. We are now seeking comment and support from the wider community, along with suggestions as to how people might like to be involved.

This document first describes the main issues and then indicates a series of key actions associated with each vision.

As a way of moving forward your comments on the approach are important. Please fill in the form provided and forward it to the Water Services Unit, Christchurch City Council.



VISIONS

for the Styx River and associated
tributaries and wetlands

Vision 1

To achieve a **“Viable Springfed River Ecosystem”**
to complement the other representative protected
ecosystems of Christchurch such as the Port Hills,
Travis Wetlands and the Coastline

Vision 2

To create a **“Source to Sea Experience”**
through the development of an Urban National
Reserve

Vision 3

To develop a **“Living Laboratory”**
that focuses on both learning and research as
envisioned by Dr Leonard Cockayne (1885)

Vision 4

To establish **“The Styx”** as a place to be
through maintaining and enhancing the special
character and identity of the area

Vision 5

To foster **“Partnerships”**
through raising the quality of relationships as we
move forward together



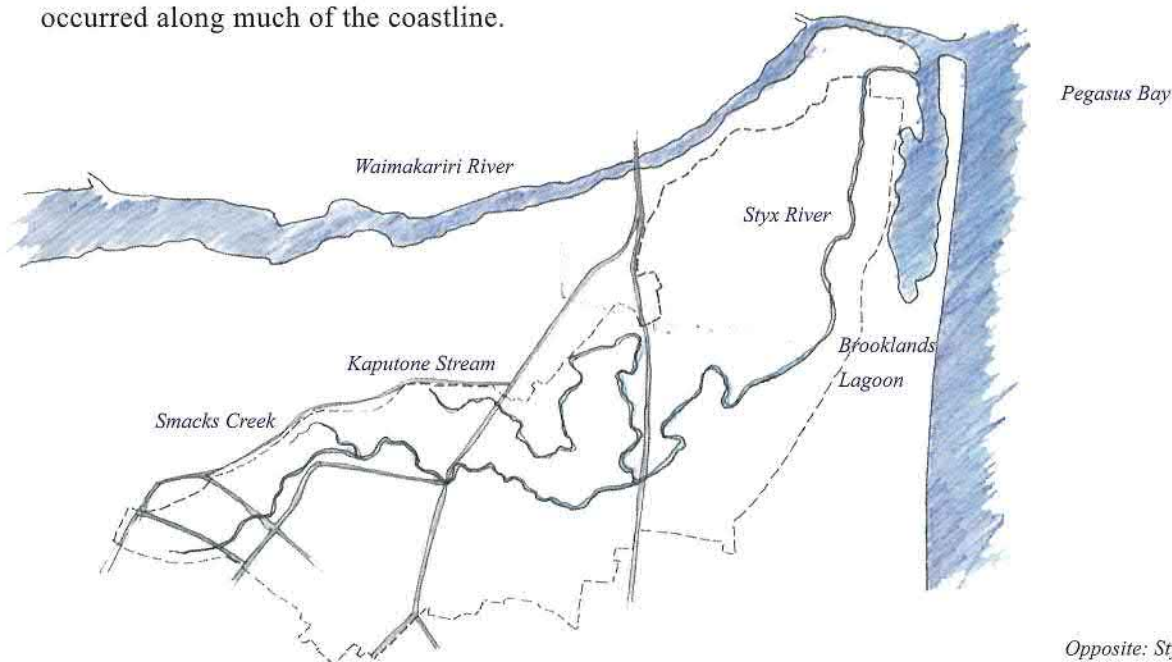
The Styx Landscape

The Styx River today reflects an earlier location of the Waimakariri River as it wandered across the Canterbury Plains and interacted with the coastline. The Black Map of 1856 indicates that when Europeans first settled in the area, the Styx River and its tributaries were surrounded by extensive wetlands (raupo/flax) and sand dunes. There was also a possible tributary link to the Waimakariri River.

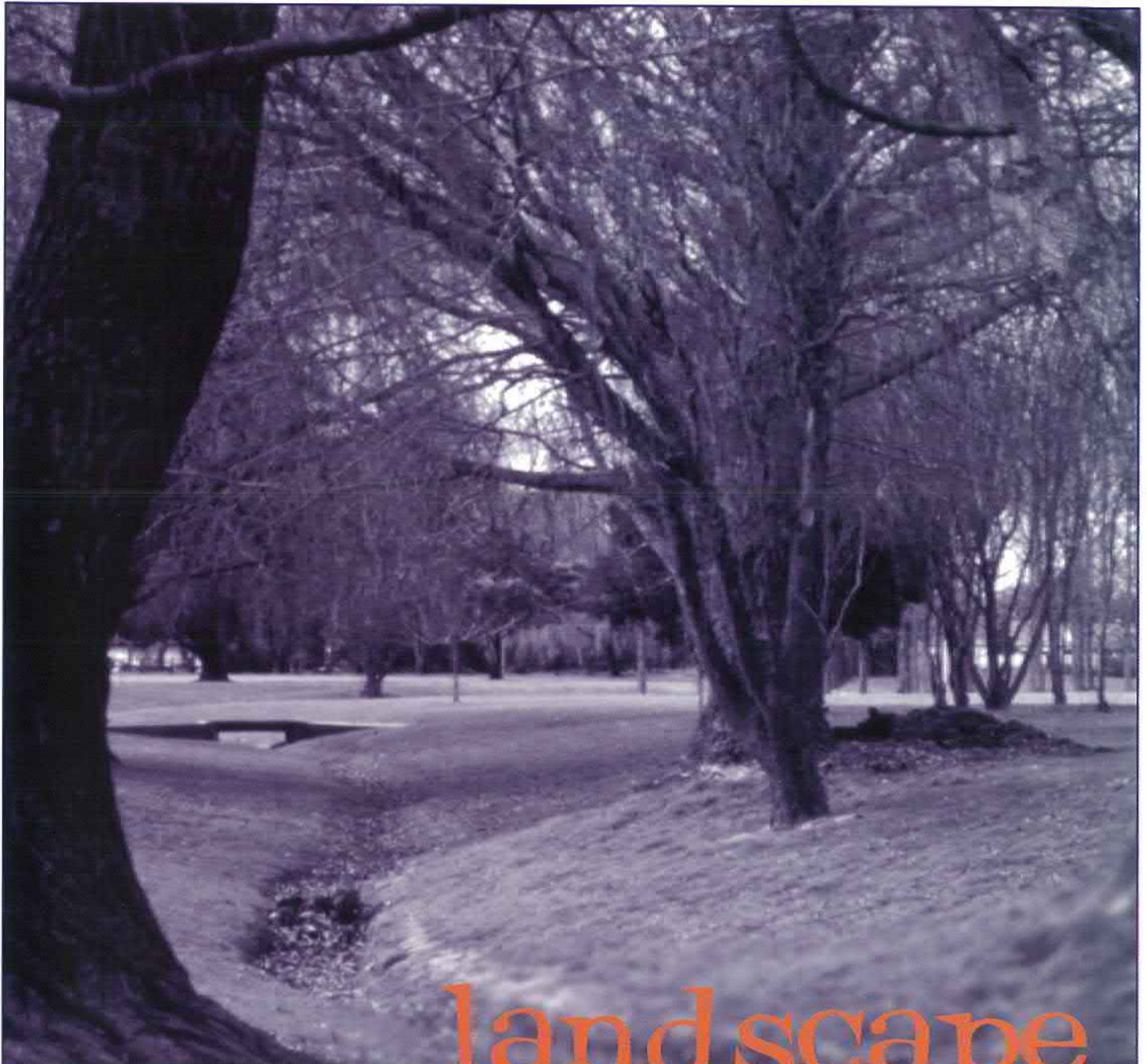
Today, the Styx River originates in the Harewood area as a dry swale that is intermittently filled with stormflow. With the emergence of springflow, it meanders northwards through reserves, rural pastures, horticultural areas and residential developments on its way to the sea via Brooklands Lagoon and the Waimakariri River. It has been extensively modified through farming and drainage practices, and in some areas by residential development.

Nevertheless, earlier natural values are still apparent. Native sedges and ferns are regenerating under the taller willow canopy along the river margins of the Styx, and sand dunes and river terraces indicate the natural processes associated with the earlier movements of the Waimakariri and the changing coastline. The salt marsh at the mouth of the Styx River provides an excellent example of what once occurred along much of the coastline.

The Styx River is highly valued by those people closely associated with it. However, much of the river is hidden within private property and only visible from road boundaries. Styx Mill and Janet Stewart Reserves provide examples of what could occur over much of its length, with restoration opening windows into Christchurch's deeper heritage and providing access through the development of walkways and community facilities. Careful integration of the river with living zones could see this area becoming a model for a balanced neighborhood lifestyle.



Opposite: Styx River, Nunweek Park



landscape

issues

- Increasing pressure from urbanisation
- Potential loss of rural outlook and village identity at Brooklands, Spencerville and Belfast
- Rural activities becoming less viable in this locality
- Limited views and access to the Styx River and its associated waterways and wetlands
- Limited protection of natural landforms and regenerating native plants
- Smaller waterways often regarded as utilities



The Water Resource and Drainage



Styx River flood plain, Brooklands - storm event 1992
Opposite: floodgates, Styx River near Harbour Road

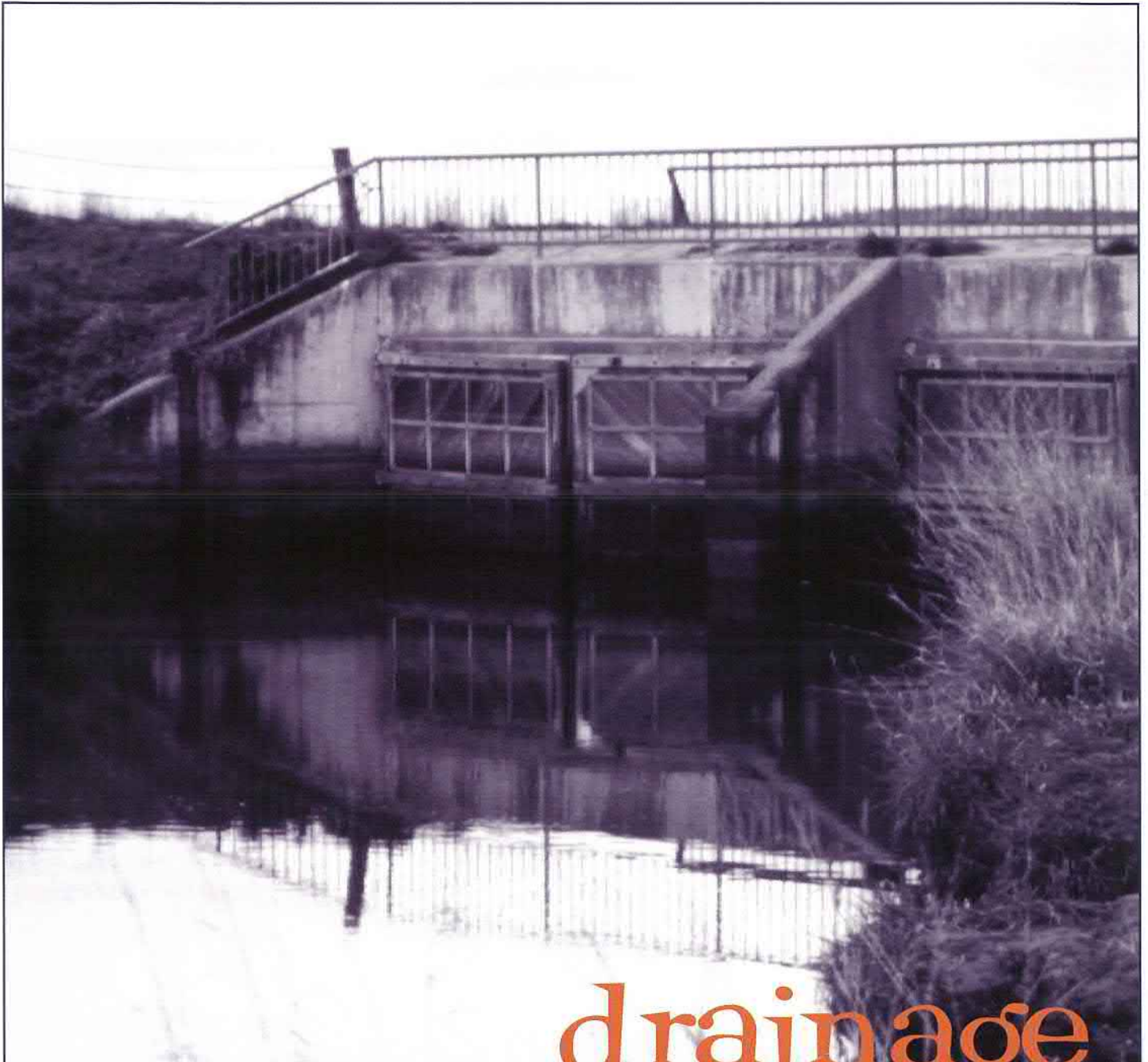
The Styx River baseflow originates from water that seeps underground from the Waimakariri River and then re-emerges as spring flow in the upper tributaries of the Styx River. This flow is added to by local storm events through surface and subsurface drainage.

Management of this water resource is critical to the wellbeing of the many other values associated with waterways and wetlands in this locality, and requires a holistic understanding of all the factors that impinge on it. Factors to be taken into consideration include abstractions, discharges, seasonal changes, large storm events and sea level rise. Long term sustainable management of this resource will require working with nature rather than against it, and will usually involve the avoidance of hard engineering solutions.

Historically, much of the catchment consisted of large wetlands that provided natural ponding and retention areas in times of storm events. Although many of these areas are now farmed, they still provide important stormwater storage. The safeguarding of these areas for storage is essential to prevent damage of residential property.

Nearly 900 wells within the Styx catchment enable people to draw water for a variety of purposes, including farming and horticulture. Furthermore, new and existing developments create large areas of impervious surfaces that reduce the amount of water seeping back into the ground. Both these factors lead to a reduction in groundwater that supplies springflow.

Not only is water quantity important, but so too is water quality. Consented discharges, stormwater discharges, agricultural runoffs and contaminated landfills can all lower water quality. To date, monitoring has been fragmented. There is a need for a systematic approach to water quality research and monitoring to achieve effective management of this aspect of the water resource.



drainage

issues

- Limited knowledge of spring locations
- Reduction in baseflows
- Potential flooding from the Waimakariri River, local storm events and sea level rise
- Protection of natural floodplains and ponding areas
- Limited knowledge of the interrelationship between the different factors influencing the water resource
- Water quality and sources of pollution
- Sporadic and fragmented monitoring
- No baseline data



Tangata Whenua Values

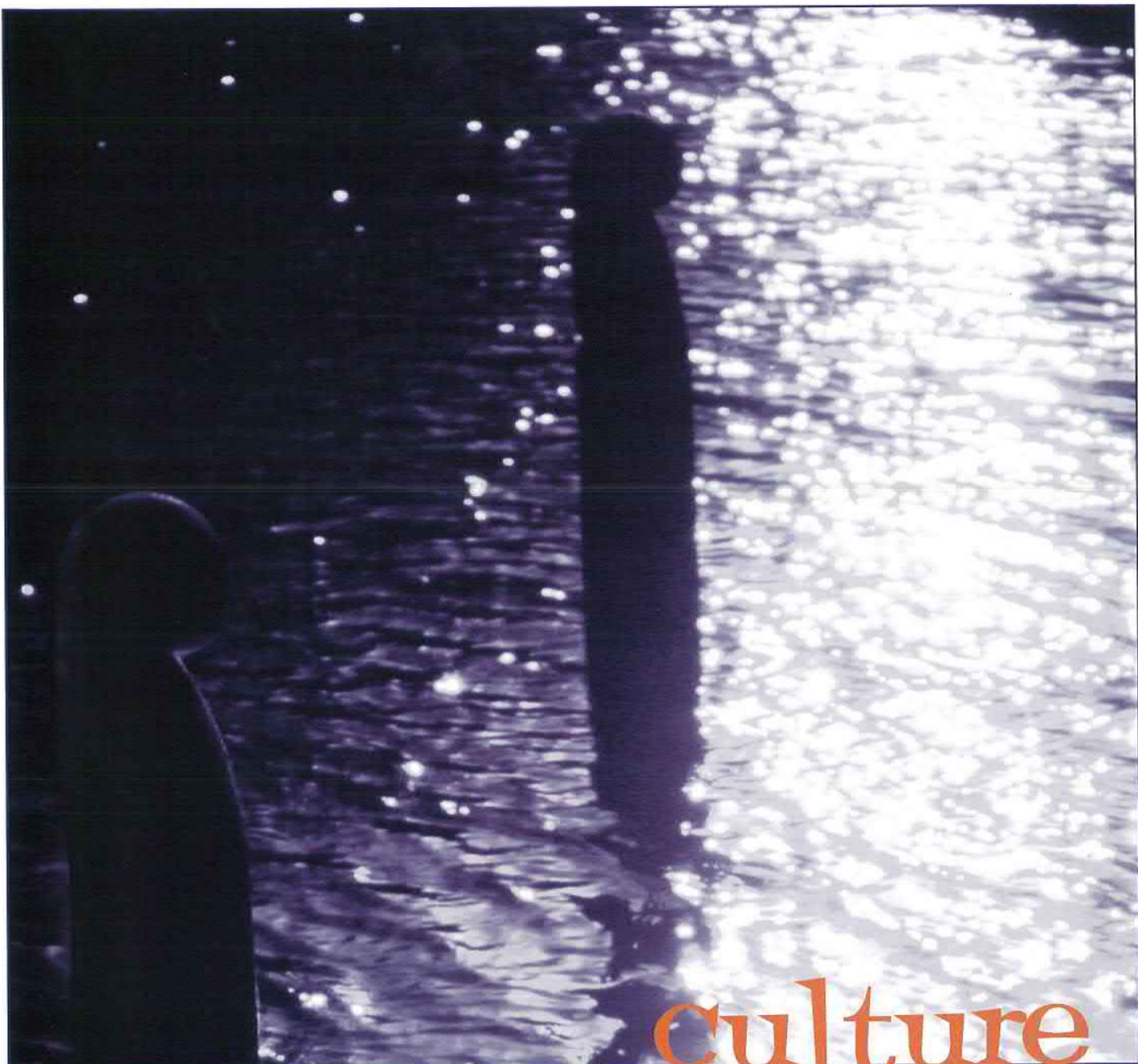
Waitaha were the earliest wave of Maori migrants to the South Island; archaeological evidence suggests that they arrived some 600 – 700 years ago. The second wave of migrants, Ngati Mamoe, originated in the Hawkes Bay area, as did the third and last wave, Ngai Tahu. In the mid 1600's Ngai Tahu settled in the Canterbury region. Although people from the different migrations intermarried, each wave nevertheless has its own stories to tell.

The different components of the landscape provided important resources that enabled Maori to live in this locality. The extensive wetlands and easy access to the sea made the Styx an important area for mahinga kai (food gathering), and for the cultivation and harvesting of flax. Upstream wetlands were important for embalming, while some of the higher terraces were used for food cultivation. Various families were given responsibility for the management and harvesting of the different plant and animal species. Many of these family associations continue to this day.

Even though the natural environment has been highly modified and in many respects degraded, the Styx is still regarded as having high cultural values and associations. Under the terms of the Treaty of Waitangi and subsequent legislation, particular importance is given to the relationship of Maori to their ancestral lands, water, Waahi Tapu sites (burial sites) and taonga (treasure).



*Baskets made out of flax from Janet Stewart Reserve
Opposite: Janet Stewart Reserve*



culture

issues

- sustainable management of native plant and wildlife species, historic sites and Maori reserve
- cultural harvesting
- integrity of the landscape
- guardianship of Matauraka Maori (Maori intellectual property)
- protection and recognition of Waahi Tapu (burial) sites
- meaningful partnership and a commitment to working together
- reconciliation of the different cultural values



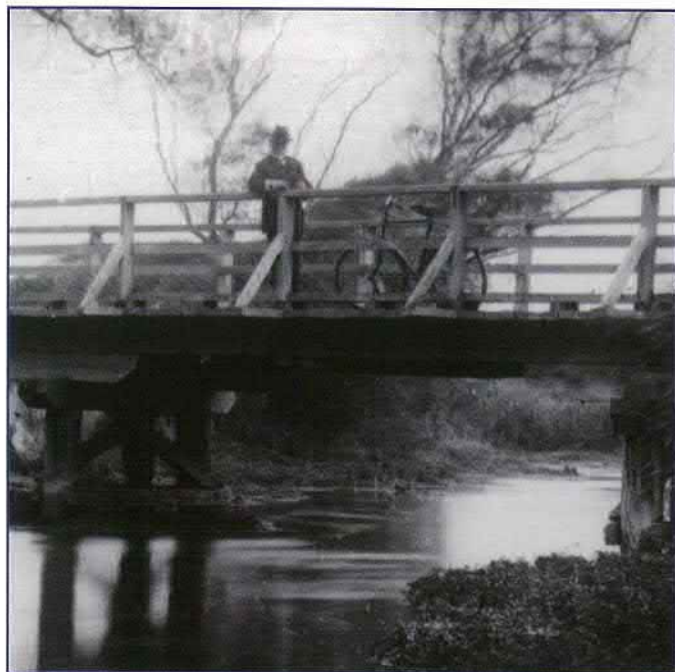
European History

The Styx River catchment was associated with several of the early Canterbury runs established more than 150 years ago. They included Sandhills to the east, Smart and Turners Run across the north of the present city, and Fooks Run between the Sandhills Run and Papanui Road. Later they were divided into rural sections ready for the early settlers. The Styx History Group has ascertained that European settlers who arrived in one or more of the first four ships purchased land in the area as early as 1854, and that descendants of some of these families still live in the Styx area today.

There are now at least three versions of how the Styx received its name. The first maintains that early European settlers crossed the river on flax-stick rafts, hence the name “Sticks”. The second version is similar, except that the bundles of flax sticks were laid in the bed of the river. The third version suggests that the name was derived from the use of flax sticks stuck in the ground to guide travellers to where the river was bridged by logs. In all cases the spelling of the name “Sticks” was later changed to the classical spelling “Styx”, derived from Greek mythology. The name Styx first appeared in Electoral Rolls in the 1865-66 register.

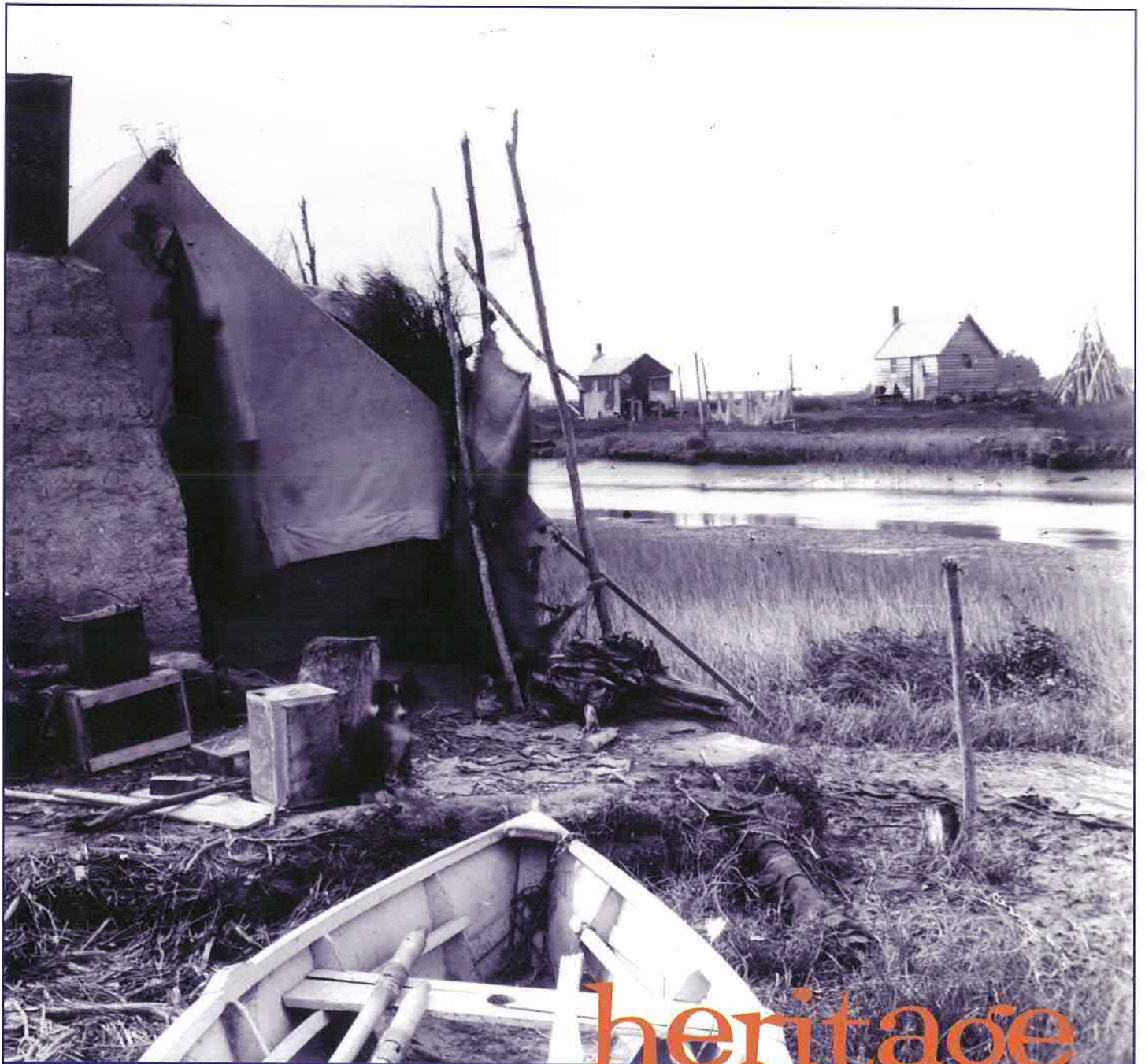
Bridge over the Styx River, 1925

Opposite: Brooklands



The Styx River was intended to be part of a water-based transport system, and ‘canal reserves’ were set aside for the proposed canals, which would link the Halswell, Heathcote, Avon and Styx Rivers. The Avon to Styx canal reserve is now Marshland Road.

The river was used to drive waterwheels and provided an important source of power for sawmills, flaxmills, and flourmills. Various uses were also made of land adjacent to the waterways, ranging from orchards near the then headwaters west of Nunweek Park to agriculture and horticulture along most of the river system; industry near the Kaputone Stream in Belfast; and recreational activities near the mouth at Seaview, now called Brooklands.



heritage

issues

- limited general knowledge and awareness of early European history
- little visual evidence of early European history in the landscape
- lack of on site and written interpretative material



Ecology

Although the Styx River system has been highly modified with very few remnants of native vegetation left, it has retained relatively high ecological values. It contains core wetland habitats and acts as an ecological corridor for upstream and downstream migrations of birds, fish, invertebrates and plants.

Nine native freshwater fish (e.g. short and long finned eel, black flounder and whitebait) still occur within this river system, along with the introduced brown trout. The waterways themselves act as highways for fish as they migrate between the different freshwater habitats and the sea. Instream obstructions, pollution, bank damage, loss of habitat and excessive fishing and predation can impact heavily on fish. There is concern about an apparent decline in numbers of some fish that needs to be further investigated.

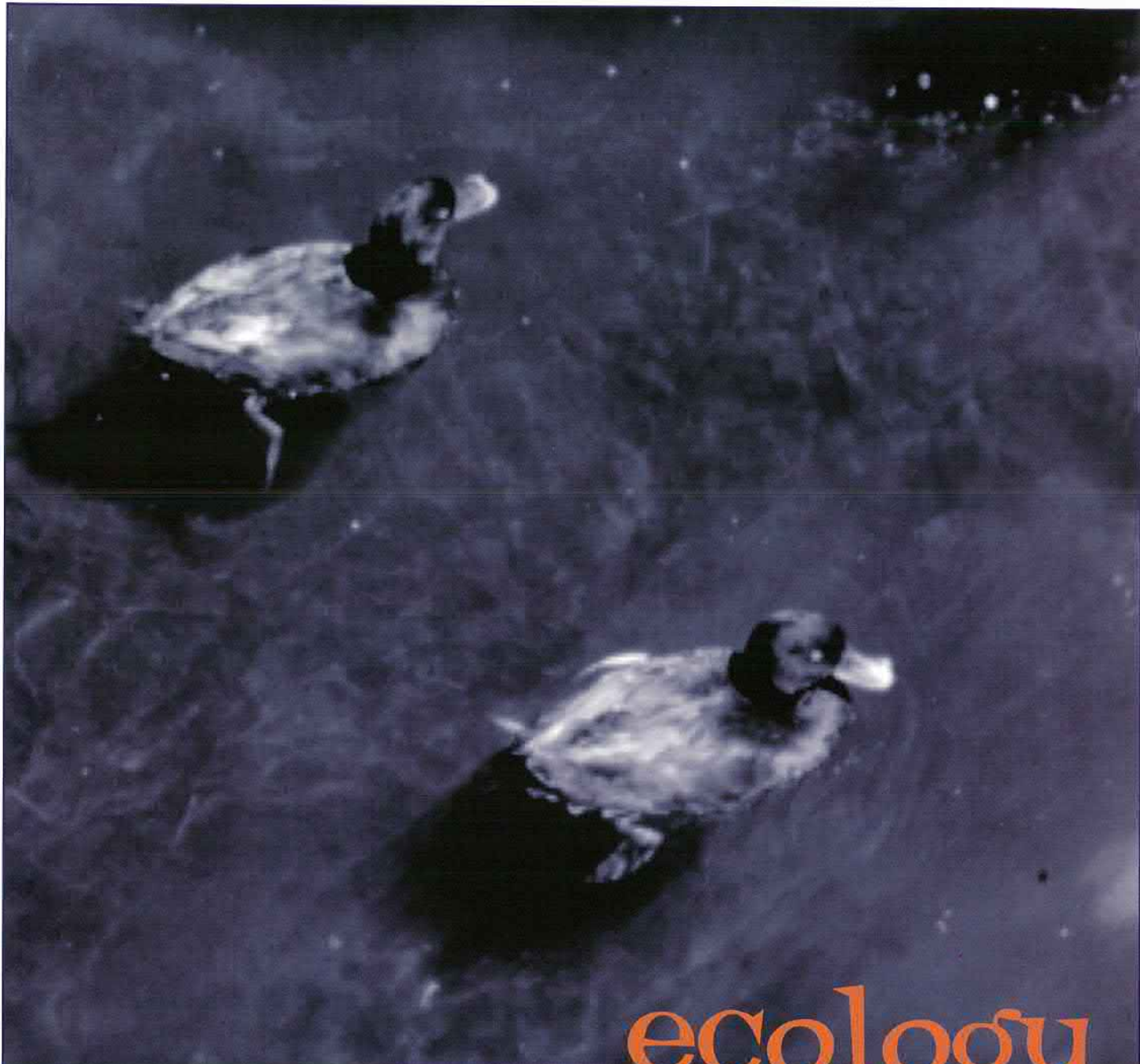
Some invertebrates provide a useful indicator of stream health. Unlike the Avon and Heathcote Rivers, the Styx catchment is still home to many sensitive animals such as mayflies and caddisflies. Unfortunately snails and midges are also becoming more common, reflecting in some instances a declining instream habitat.



*Student research, Styx Mill Reserve
Opposite: Scaup, native black duck*

Fifty-six bird species have been recorded in the Styx catchment, of which 35 are native. This figure is an improvement on ten years ago when only 45 species were recorded. The increase has been due in part to waterway and wetland restoration at Styx Mill Basin and Janet Stewart Reserve. Perhaps the most exciting comeback is the return of the scaup, the small black native diving duck that is now very visible on the waterways within the catchment and elsewhere in the city. With further development of a range of habitats and buffer zones there is potential to add to this success.

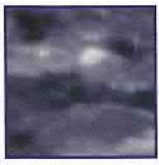
The objective is to achieve a healthy, well-balanced, fully functioning river ecosystem which supports a large range of species. This requires an understanding of all species and how they relate to one another. Ecological research to date has been spasmodic and undertaken by a range of organisations (students, NIWA, Landcare, Environment Canterbury, the Christchurch City Council, Fish and Game Council and the Department of Conservation). More co-ordinated and focused research arising from the issues associated with the river system would be welcome, as would the opportunity to view the results of research at one central easily accessible location (eg web page and Styx Learning Centre). These innovations would add to the overall understanding and management of this important resource.



ecology

issues

- water quality
- decline in the numbers and size of eels in the lower catchment
- trout egg deaths and a decline in the number of redds (trout egg nests)
- poor riparian zone management practices in some areas
- inadequate buffer zones and screening
- disturbance from people and predators
- limited range of habitats and the need for more core areas and buffer zones
- loss of hinterland wetlands and woodlands in the hinterlands
- limited ecological knowledge and fragmented research
- research results held in a range of locations
- cost of maintenance associated with willows and river weed



Recreation and Learning Opportunities

Recreation opportunities associated with the Styx River system are currently limited to a few large and small reserves. Nunweek Park, Styx Mill Reserve, Sheldon Park, Janet Stewart Reserve, Ouruhia domain, Englefield Reserve and several smaller reserves, such as the Boating Reserve, provide access to the water's edge.

Future recreational developments in this area need to take into account the changing recreation trends brought about by:

- an increase in population
- an increase in the number of retired people
- higher rates of unemployed and non-labour force participants
- a move towards unstructured recreational activities (pay and play or spontaneous activities)
- an increase in the likelihood of people seeking involvement in activity beyond work
- increasing concern for environmental quality in recreational areas



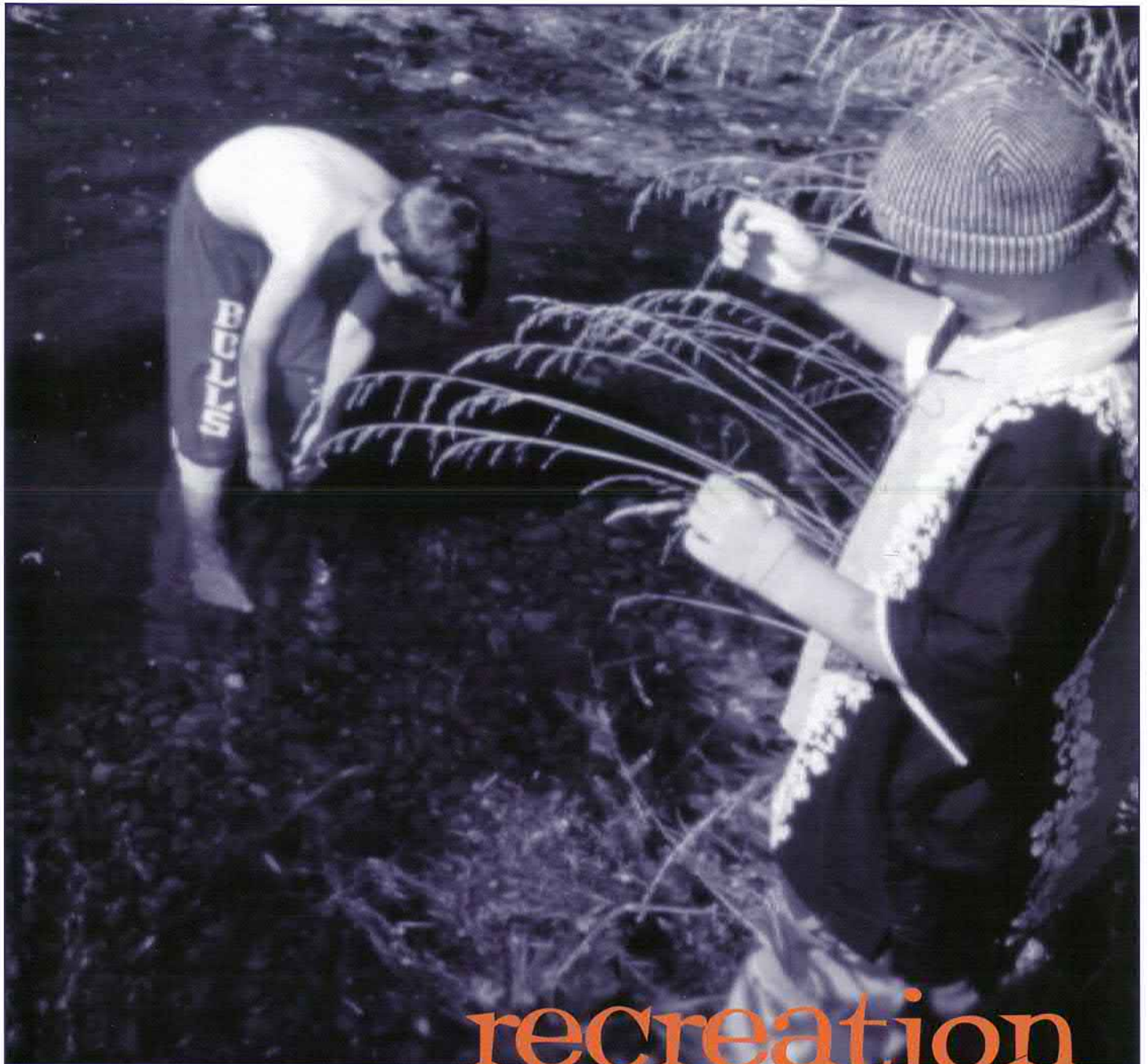
Whitebaiting on the Styx River

According to the Hillary Commission for Sport, Fitness and Leisure Report (1997), 84% of females and 61% of males in Canterbury list walking as their main form of physical activity.

The potential for recreational activities within the Styx catchment is considerable. Many key open spaces are available for cycling and walking, while the river itself is particularly suited to canoeing and kayaking.

The establishment of a 'Source to Sea' walk would be the first of its kind in New Zealand. To achieve this, careful consideration needs to be given to the impact that future road widening would have on proposed walkways located alongside the Styx River, particularly where the river crosses the Main North Road, Marshland Road and the proposed expressway. These roads have the potential to become major barriers for people wanting to cross them as part of a 'source to sea' experience.

The development of recreational activities in this area would open up many learning opportunities. Accommodation units such as the Spencerville Camping Ground are ideally located to support overnight education packages based on the river system.



recreation

issues

- limited access along river margins
- quality of the river environment central to the recreation experience
- need to manage for both recreation and wildlife values
- recreational activities need to respect sites of high cultural significance to Tangata Whenua
- increase in high-speed traffic creating barriers to easy walkway access along the Styx River

Managing the Styx River System

Sustainable management of the water resource is a requirement of the Resource Management Act (1991). Over the last two years, consideration has been given to what this means for the Styx River system through working with the community and Tangata Whenua, listening to concerns and undertaking a range of expert investigations. From this work, the document “Vision 2000 – 2040, The Styx Waterways, Wetlands and Surface Water, Community Planning for the Future” has evolved.

The document identifies five interrelated visions and a range of steps to attain them. If implemented they will achieve sustainable management of this important natural resource for the enjoyment and betterment of both our community and our environment. The visions will only be realised, however, by working in partnership as we move forward together.

Resources are a vital component in the implementation of any plan. First and foremost is the human resource. Groups have been working together for some time, undertaking community projects. Ideas and initiatives continue to be explored.

As with any undertaking of this size, funding for the development of these ‘visions’ will be a significant factor. This Plan has two advantages. First, not all visions need to be implemented at the same time. Second, the cost of the total package can be spread over a 40 year period.

But there is another cost to be considered.

What will it cost to do nothing?

Potential results of doing nothing:

- loss of wildlife
- potential visual domination by buildings
- water quality degradation
- bank works to restrain waterways within a narrow confine
- limited opportunities to express cultural and heritage value
- loss of recreational opportunities
- the Styx River and its tributaries will become hidden within private properties with no public access

Sustainable Management means

managing the use, development, and protection of natural and physical resources in a way, or 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 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.

Resource Management Act 1991

Revisiting and expanding the Visions

Vision 1

To achieve a “Viable Springfed River Ecosystem”

to complement the other representative protected ecosystems of Christchurch such as the Port Hills, Travis Wetlands and the Coastline

Seeking to achieve a viable springfed river ecosystem is a requirement of the Resource Management Act and fundamental to the success of all the visions.

Key Actions

- Protect, maintain and restore natural drainage patterns by:
 - understanding natural surface and subsurface drainage patterns and processes through research and monitoring
 - recognising natural variations due to storm events and seasonal changes and allowing sufficient space for these to occur through building setbacks, zoning and land protection
 - avoiding filling and building within floodplains and ponding areas through education, working with land owners, regulation and enforcement
 - recognising and planning for the long term effects of climate change
- Identify, protect, and highlight springs
- Protect and enhance water quality by:
 - identifying and mitigating against point source discharges
 - developing strategies to deal with non point source pollution
- Protect and monitor remnant indigenous vegetation and the effect of weed invasion on them
- Identify and protect natural landforms
- Restore a range of viable habitats that reflect the range of indigenous ecosystems in this area, based on the underlying soils
- Increase native bird species richness through:
 - protecting and restoring core habitat sites for wetland and bush bird species
 - ensuring that there are adequate buffer zones along waterway and wetland margins
 - developing green corridor linkages to areas outside the Styx area.
- Undertake predator control as necessary
- Reintroduce native bird species in suitable locations (ie fernbird at the mouth of the Styx)
- Investigate methods to increase the number of trout and the number and range of native fish species within the Styx River System.
- Monitor, mitigate and remedy the effect of land use change on water quality and other ecosystem attributes.



Vision

To achieve a “Viable Springfed River Ecosystem”

to complement the other representative protected ecosystems of Christchurch such as the Port Hills, Travis Wetlands and the Coastline

Vision 2

To create a “Source to Sea Experience” through the development of an Urban National Reserve

This ‘vision’, a ‘Source to Sea’ experience, would be a first for New Zealand. It would enable people to experience and learn about the river system, from its source to the sea, through the development of a continuous walkway along its length.

The experience would be further enhanced through the development of a national reserve with high natural values. National reserves do not always need to be sited in far away places, inaccessible to all but the most avid of trampers. Wild natural places within a city environment are equally important and valuable.

Key Actions

- Identify and protect
 - suitable routes along the Styx River, Kaputone Stream and other tributary waterways (this to be done in the spirit of partnership through negotiation with current land-owners)
- Prevent walkway barriers associated with major vehicle access into the city
- Provide a range of experiences through the development of:
 - walkway routes, boating facilities, cycleways
 - a range of landscape experiences based on natural and cultural values
 - innovative interpretation material
- Develop service nodes that will concentrate human activity and provide facilities for:
 - car parking
 - relaxation
 - eating facilities
 - learning facilities
 - recreation facilities
 - accommodation/camping grounds
- Monitor and remedy the impact of people and recreational activities on ecological values through:
 - Preventing or limiting access to core habitat or sensitive areas
 - Use of design elements that will lesson the impact on wildlife (ie screening, moats, fences)
- Promote the source to sea experience through:
 - the development of promotional material
 - on site interpretation, facilities and learning experiences



Vision

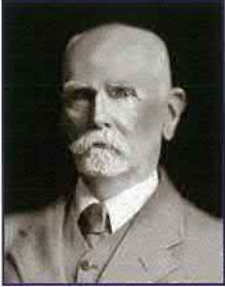
To create a “Source to Sea Experience”

through the development of an Urban National Reserve

Vision 3

To develop a “Living Laboratory”

that focuses on both learning and research as envisioned by
Dr Leonard Cockayne (1885)



Dr Leonard Cockayne (1855–1934), one of Christchurch’s early leading botanists of international repute, lived within the Styx catchment and conducted research and experiments in this area. Thelma Strongman, a local historian, has described the area in which he conducted his research as a ‘Living Laboratory’. This vision builds on this concept and extends it to the whole river system.

Key Actions

- Develop partnerships with:
 - Other government organisations (eg Environment Canterbury, Department of Conservation, Ministry of Fisheries, Fish and Game Council)
 - Iwi
 - Research institutions (eg NIWA, Landcare)
 - Tertiary Institutions (eg Lincoln and Canterbury Universities, Christchurch Polytechnic, Christchurch College of Education)
 - Schools and young people’s organisations
 - Community groups and volunteers
- Establish an inclusive working party to oversee the development and implementation of a research and learning programme
- Develop an on-site research centre through the acquisition and development of a building that can provide:
 - laboratory suitable for analysis of results
 - facilities for class and student visits
 - library
 - interpretation facilities
 - plant nursery
- Develop a common accessible source of information that contains electronic databases of information and a GIS (Geographic Information System) that is regularly updated
- Develop a website that:
 - Promotes the Living Laboratory, its concept and how to get involved
 - Provides easy access to data and reports
 - Provides on-line learning activities for students prior to and after visiting the area
 - Promotes student projects, thoughts and ideas
 - Encourages enquiries and discussion
- Develop joint projects with communities in other areas to compare and contrast the Styx River and its environs with other ecosystems



Vision

To develop a “Living Laboratory”

that focuses on both learning and research as envisioned
by Dr Leonard Cockayne (1885)

To establish “The Styx” as a place to be

through maintaining and enhancing the special character and identity of the area

Many already recognise the distinctive character of this area and its sense of place. It is important that we protect and build on those aspects that are important.

Key Actions

- Recognise, highlight and enhance the unique landscape character of the Styx River system through:
 - improving public access, visibility and the growing of large trees along its margins
 - promoting major road crossings of the Styx River as gateways into the city
 - through signage, green corridors and other features
 - a series of markers along the Styx River, to be based on the word ‘Styx’ and the theme ‘Sticks’
- Protect and accentuate the stories of the land, its drainage and vegetation patterns, cultural features and landmarks
- Allow people to express their relationship to the area through consultation and participation
- Develop and promote a design guide for all public land that will eventually be part of the urban national reserve, so that the smaller existing reserves are seen and recognized as being part of something bigger. This is particularly important for features that will occur regularly throughout such as signage, fencing, seating, rubbish bins, paths, artworks
- Promote the locality through:
 - regular newsletters
 - media articles
 - publications (eg history book)
 - Christchurch City Council website
 - videos, documentaries
 - a unique branding and identity based on the Styx logo of the white heron
- Stage a series of events that will enhance this area as a place to be



Vision

To establish “The Styx” as a place to be

through maintaining and enhancing the special character
and identity of the area



To foster “Partnerships”

through raising the quality of relationships as we move forward together

The successful implementation of a long term vision for the Styx will only occur through the development of quality relationships with the local and wider community and organizations as well as Tangata Whenua. Good communication will be the key to success. National and international partnerships will also extend our understanding of our own river system and provide a national and global perspective to our local environment and management practices.

Key Actions

Tangata Whanua

- Develop policies for Mahinga Kai specific values including habitat and species management
- Recognise and protect sites of significance and where appropriate, mark these by signs or events

Locally

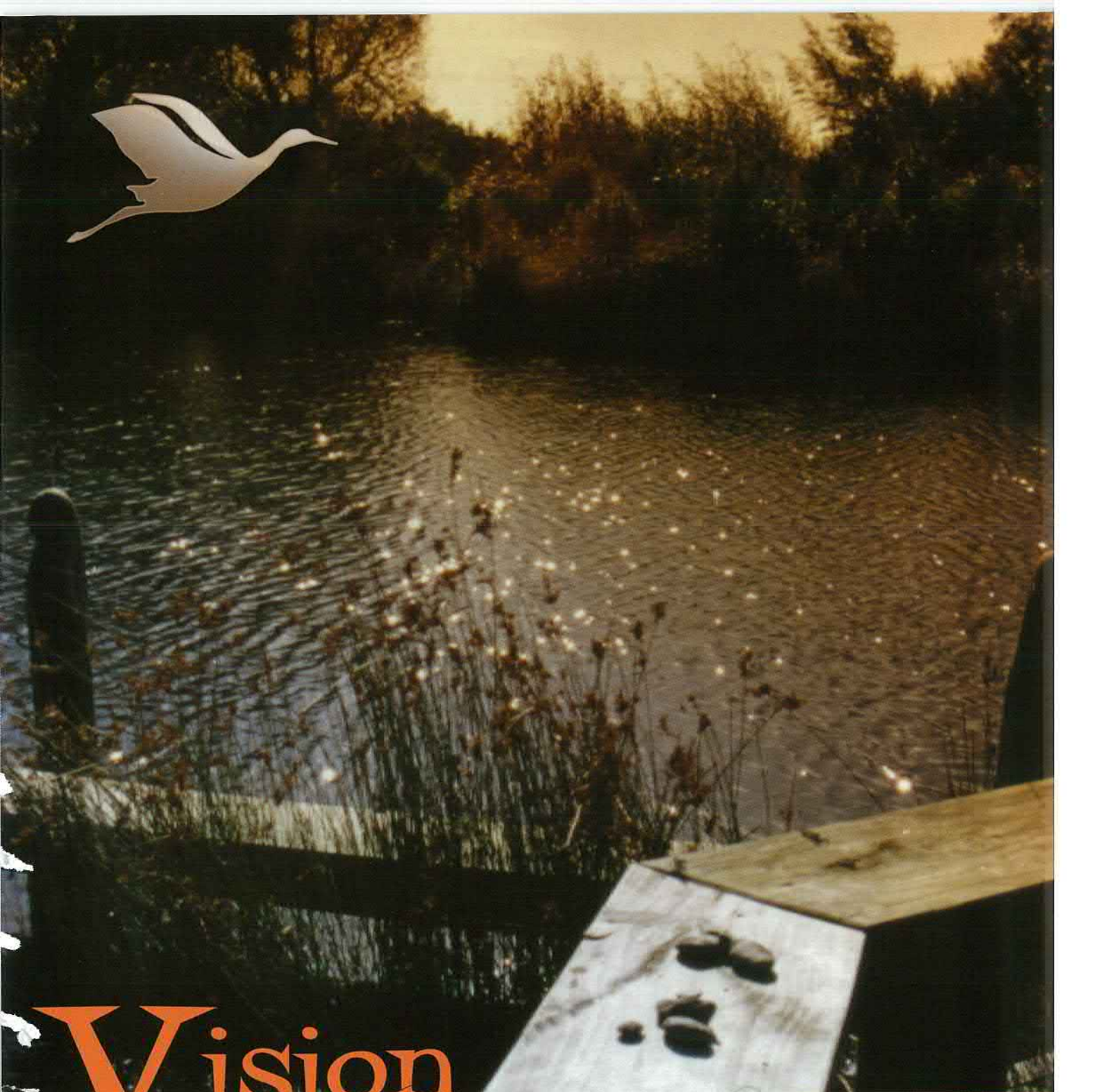
- Work with private landowners in the development of the Vision while at the same time recognizing:
 - private property rights
 - the need to use a range of protection methods to accomplish desired outcomes
 - the need to achieve ‘win-win’ situations
- To work with a wide range of organisations and institutions in the development of the “Living Laboratory”
- To work with private enterprise and community organisations in the development of “The Styx” as a place to be
- To work with private enterprise, landowners and community organisations in the development of the “Source to Sea” experience

Nationally

- To become involved in national programmes of research using The Styx as a case study
- To develop joint projects in order to compare and contrast the Styx with other ecosystems
- To promote information sharing in order to learn from one another

Internationally

- To develop and strengthen the Sister River relationship ties with Alabama USA
- To plan and develop other international links for the benefit of both parties



Vision

To foster “Partnerships”

through raising the quality of relationships as we move forward together





Foresight and visionary thinking provided our generation with one of our city's major assets, Hagley Park.



Hagley Park

The Styx River and its environs offers this generation the opportunity not only to protect and preserve its unique character and features, but to leave behind something of greater value for generations to come.

What Happens Next?

One hundred and fifty years ago, our forefathers had a vision for Christchurch. Today we are celebrating their vision as part of the city's 150th anniversary celebrations. We need not only to look back but to also look forward and consider what our city will be like in the future. The purpose of this booklet is to present a long term vision for the future management of the Styx River catchment, along with a series of actions required to achieve it.

Members of the public are invited to comment on the proposal and suggest ways that they would like to become involved in its implementation.

The following timetable will apply.

Date	Event and Purpose
2000	
December	Presentation of Plan to Public for comment The draft of the 40 year Styx Vision document be presented to the public as part of Christchurch City's 150 th Anniversary celebrations.
2001	
28 February	Closing date for written responses Final date for written submissions on the Styx Vision document to be lodged with the Christchurch City Council
April	Revised Document submitted for approval The revised 40 Year Styx Vision document will be presented to the Parks & Recreation Committee, Fendalton/Waimairi, Shirley/Papanui and Burwood/Pegasus Community Boards for approval
April	Presentation of 40 Year Styx Vision Document available for distribution
During 2001	Publication of Information and History Books relating to Styx River and its environs
Ongoing	Implementation of Styx River Vision document

It is important to remember that the development and implementation of the vision will be a dynamic, evolving process that involves the community, Tangata Whenua, education and research institutes, the Christchurch City Council and a number of other government organisations such as Environment Canterbury and the Department of Conservation. Working together towards a 'preferred future' will enable us to leave the next generation something that we can be proud of and that they will also enjoy and value.

Invitation to become a Partner in the Process

In the spirit of true 'partnership' (as outlined in Vision 5) you are invited to share in the development and implementation of this plan. Inserted into this book is a Response Form. If you are interested in the well-being of the Styx River and its environs and would like to contribute, your written comments and suggestions are welcomed. If someone has already used the response form more can be obtained through telephoning the Water Services Unit (ph 371 1319) and some will be posted to you. They can also be collected from:

Water Services Unit
Civic Offices
Tuam Street

Fendalton Service Centre
Corner Clyde Road and Jeffreys Road

Papanui Service Centre
Corner Restall Street and Langdons Road

Shirley Service Centre
36 Marshlands Road

For more Information

If you would like more information about the vision or the partnership process please contact one of the persons listed below.

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Acknowledgements

This document is the result of collaboration between the Christchurch City Council, Tangata Whenua, Guardians of the Styx, focus groups, various consultants, the wider community and other government organisations. As there are too many individuals to acknowledge by name, I would like to express sincere gratitude for the generous input of all those who have been involved to date.

Christine Heremaia
Styx Catchment Project Area Leader
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Photography and graphic work - Tanya Cathel-Black
Historical photos - Canterbury Museum

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Appendix 1 The Process to Date

From the beginning a large number of people have been supportive and closely involved in the development of the 40 year vision for the Styx River and its environs. Various milestones in this journey are listed below:

Date	Event and Purpose
1999	
14 March	Styx Happening at Spencer Park To raise awareness as to the specialness of the area and to begin to work together
11 April	Styx River Workshop, Styx Mill Basin Reserve To seek community views, priorities and concerns
15 August	Styx River Bus Tour Requested by community members to gain overall view of Styx River
29 August	Community Planting Day Janet Stewart Reserve Working together to improve the environment
May – October	Focus Group Discussions Recording the interests and concerns of various interest groups within the community, sharing aspirations and visions for the future
May – October	Consultation with Tangata Whenua Gaining insight and understanding of local Iwi regarding the significance of the Styx area
October	Guardians of the Styx Community Group formed Their aim “to protect, restore and raise awareness of the values of the Styx River and its environs”
October	Styx History Group formed Community members working together to research and record history of the Styx area
2000	
Feb – August	Investigation & reporting by Technical Experts Researching geological, environmental, hydrological, ecological & aquatic values and issues
25 May	Sister River Link created with Styx River, USA A Sister River relationship formalized to facilitate the exchange of information, environmental issues and solutions – A New Zealand first!
30 July	Clean Up the Styx River Day A community project to clean up areas of the Styx River
27 August	Community Planting Day Community planting enhancing the area at the Boating Reserve
30 August	Presentation to Parks & Recreation Committee A draft of the 40 year Styx Vision presented to members of this Committee of the Christchurch City Council
24 October	Joint Presentation to Community Boards & Guardians of the Styx A draft of the 40 year Styx Vision presented to members of the Guardians of the Styx and to members of the Fendalton/Waimairi, Shirley/Papanui, and Burwood/Pegasus Community Boards
December	Presentation of Plan to Public for comment The draft of the 40 year Styx Vision document presented to the public as part of Christchurch City’s 150 th Anniversary celebrations

Appendix 2 Consultation

Extensive consultation has been undertaken in order to understand people's values and aspirations for the Styx River and its associated tributaries and wetlands. Results of this consultation are outlined below.

1. Consultation with the Local Communities

The Styx River Workshop 'Seeking Community Views' and the focus group discussions undertaken by an independent consultant provided feedback that recognized the need to develop a long-term ecologically and socially sustainable management plan for the Styx River catchment, which fulfilled the wishes and aspirations of the community. The prime concern was the 'desire to protect the integrity and health of the river'.

Specific recommendations included:

- Continuing to raise awareness
- Conducting education programmes/workshops
- Continuing to work in partnership
- Establishing a buffer strip on both sides of the whole length of the Styx River
- Wherever possible, acquiring reserve strips by purchase
- Ensuring adequate reserve contributions are negotiated on subdivision (10 metres was not considered sufficient by most participants)
- Negotiating river protection mechanisms on private property in partnership with property owners
- City Council and Environment Canterbury to follow through to ensure that conditions of resource consents are adequately met
- Encouraging appropriate development (e.g. the development of passive recreation, wildlife areas, educational opportunities, urban and eco-tourism, sufficient area to ensure "wilderness" places are available, and alternatives for the more disruptive or incompatible activities)
- Addressing specific issues raised, such as access issues from the point of view of people wishing to access the river, access issues from the point of view of private property owners (especially in instances where the river runs immediately adjacent to or through private property), river maintenance matters, the perception held by some that the City Council is not negotiable about plantings, and City Council/Environment Canterbury responsibilities in relation to the river and also to on-the-river residents located downstream from industrial, farming, or other development activities.

In addition, a formal needs survey of an area including Brooklands and Spencerville was carried out for the Shirley-Papanui Community Board. 'While there was a reasonably-high level of consensus about the adverse effects of a major increase in the number of dwellings on the character of each of the settlements included in the survey, there were a range of views concerning the developments which would be welcome' (Sparrow, 1999). Generally, respondents did not want more housing on smaller sections in their area. In terms of recreation, some respondents preferred the natural/rough style of existing walkways. Others felt that some walkways were not "season friendly" (i.e., not suitable for use in winter). Two recommendations were for additional recreational facilities, and a greater range of organised recreation activities.

2. Consultation with Tangata Whenua

Workshops and discussions with representatives from the various local Maori families identified a number of issues that are important to Tangata Whenua. Values shared with the general population included stewardship (kaitiakitanga), beneficial property rights, wise resource use and allocation, management protocol, sustainability, indigenous ecosystems and the importance of water quality.

Specific recommendations included:

- Creation of a natural buffer between waterways and development based upon the indigenous ecosystem approach
- Establishment of harakeke (flax plantings) suitable for weaving
- The provision of fishing easements for mahinga kai purposes
- The resurrection of habitat through the creation of wetlands as buffers for the regeneration of fish and plant communities to remedy the effects of loss of mahinga kai. No further reclamation of wetlands should be allowed
- That a fisheries museum be established on the Puharakekenui site to display the fishing and gathering artifacts that are in collections
- Provision of facilities for fishing
- The establishment of markers that will tell a story and identify the location of the Styx River
- The protection of sacred areas and sites of significance
- The use of the key icons – the eel, whale, dolphin, albatross, hui and kotuku at the appropriate locations

3. Consultation with the 'Guardians of the Styx'

The recommendations from the 'Guardians of the Styx' community group are as follows:

- Pursue and formalise with respective regional and central government departments the 'Urban National Park' concept.
- Support the concept in full of a 'Living Laboratory' of the entire Styx River. This would include a centre adjacent to the river that contained areas for study, analysis, interpretation, native plant nursery, and accommodation and as a field centre for river wardens. Aquatic scientists, ornithologists and environmental scientists would be involved in research on such things as biological indicators, human impact on the ecosystem, restoration and maintenance practices. An educational programme for schools and universities would be developed.
- Continue the overall goal of creating an ecological corridor through land purchase alongside the Styx River and its tributaries.
- Strive to undertake sensitive natural restoration projects with a view to being proactive in the New Zealand environmental vision of 'Turning the tide on the decline of our natural biodiversity'. Provide exclusion zones for restored natural biota where appropriate microclimates are created in pockets of a suitable size.
- Following an independent environmental impact assessment, modify the flow patterns of the Styx and its tributaries through the development of better channelisation, similar to the work carried out on the Cust River and additional ponding areas.
- Implementation of programmes in the Styx river catchment of community environmental awareness responsibilities (ie household, industrial, and rural toxic and non biodegradable material runoff effects into waterways).
- Adopt the concept promoted by Gordon Griffin (Lincoln University 1975) that low land should not be allocated to residential use, rural possibly, recreation definitely.
- Improvements in all aquatic habitats including spawning and feeding areas, these include all aquatic invertebrate and vertebrate habitats.
- Addressing the problem of aquatic river weed (elodia) and all other introduced aquatic and terrestrial weed problems with pragmatic, ecologically sensitive solutions (ie growth of instream weeds could be minimized by excluding light through suitable plantings adjacent to the waterway).
- Monitor and counteract efficiently all pests detrimental to native bird populations including cats, dogs, possums, stoats, weasels and ferrets.
- Promote the environment of the Styx River as a peaceful and passive recreational place for enjoyment by people with quieter pursuits and activities, including punting, walking, fishing, arts, history, culture and the viewing of natural flora and fauna. This objective to be attained by land acquisition, and by the development waterways and associated landscaping.
- Facilitate community planting days and maintenance of plants.

Appendix 3 Expert Reports

The following expert reports are available from your local library, Service Centre or the Water Services Unit of the Christchurch City Council.

Styx River Catchment Data Review: Geology, Soils, Vegetation, and Land Use

LR Basher Landcare Research Contract Report: LC9900/121 August 2000
Manaaki Whenua, Landcare Research New Zealand Limited

Supplementary Notes on the Vegetation and Landscape Potential for the Styx River Catchment, Christchurch

Colin Meurk Water Services Unit, Christchurch City Council, November 2000

Fish and Invertebrate Values of the Styx River Catchment: a Strategic Review

M Taylor NIWA Client Report: CHC99/47 July 1999
National Institute of Water & Atmospheric Research Ltd, Christchurch

A consideration of aspects of the Styx River Ecology, and its Implications for Whole River Management

M Taylor, A Suren, B Sorrell NIWA Client Report CHC00/34, May 2000
National Institute of Water & Atmospheric Research Ltd, Christchurch

Styx River Catchment, Assessment of Wildlife Values and Habitat Potential

Andrew Crossland Wildlife and Habitat Management Consultant October 2000

Styx River Catchment: Data Review – Water

G Hulley, R Little AC266695/0402/6000/R001B.DOC June 2000
Woodward Clyde (NZ) Ltd

Puharakekenui, The Values of Tangata Whenua

Nigel Harris August 2000

Sedimentation Rates in Brown Trout (*Salmo trutta*) Spawning Reaches in the Styx River

Craig Dolphin, Student, Lincoln University 2000

A Recreation Vision for the Styx River

Rob Greenaway & Associates, July 2000

The Styx – Christchurch, Opportunities for Ecotourism

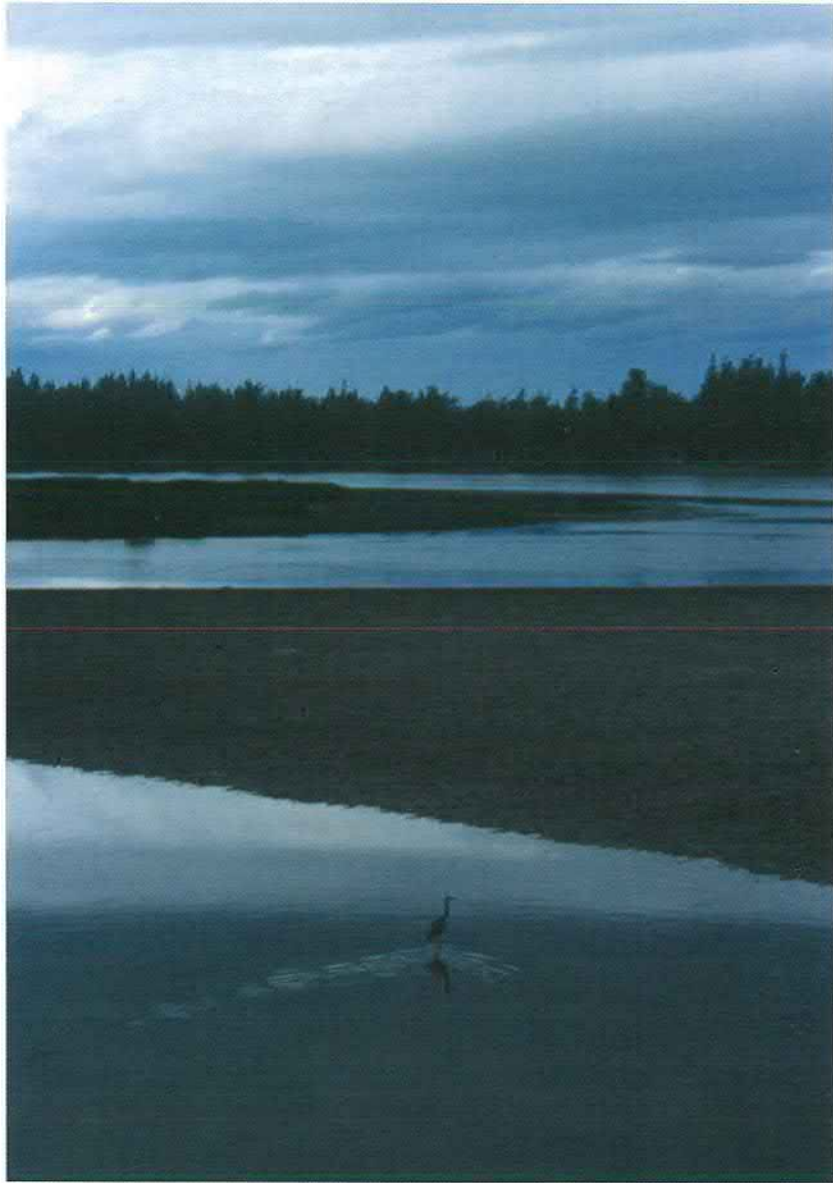
John Knox, Eco-tourism consultant August 2000

Styx River Precinct Design Philosophy

Perry Royal Architects Limited August 2000

Community Perceptions of the Styx River and its Environs

Marivee McMath 2000



**Protect the mauri of
the resource
and raise the spirit of
the people
in the management
and guardianship
of the waterways and
wetlands**

**Kia tiakina te mauri ora
o nga arawai repo
Kia hapai ai te wairua
whakaora o nga tangata**

