

7. SMACKS CREEK ESPLANADE RESERVE DEVELOPMENT

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The purpose of this report is to obtain approval in principle from the Shirley/Papanui Community Board for the development of the recently acquired Smacks Creek Esplanade Reserve located between Hussey Road and Gardiners Road.

LOCATION AND DESCRIPTION OF LAND UNDER CONSIDERATION

Smacks Creek Esplanade Reserve, an area of 1.0138 hectares, is bounded by Gardiners Road, Redwood Aquatics Aquarium and Water Garden Centre, Hussey Road and new residential development. **(Please refer to the attached location map)**. Smacks Creek, a tributary of the Styx River, runs through the reserve for approximately 220 metres. The area is overgrown with exotic trees and weed species. Natural regeneration of native plant species is occurring under the taller tree canopy, especially along the water's edge. There is a large area of peat adjacent to Gardiner's Road. A natural river terrace forms the northern boundary. A constructed pond and vehicle maintenance track exist on the floodplain between Smacks Creek and the terrace. Some large willow trees along the southern bank of the stream have recently been removed.

LEGISLATIVE CONTEXT

The Styx River is managed in accordance with the Christchurch City Plan, Long Term Council Community Plan, Waterways and Wetlands Asset Management Strategy adopted by Christchurch City Council (October 2000) and the Styx Vision adopted by the Christchurch City Council (2001).

(i) Christchurch City Plan

Policy 2.2.10 of the Christchurch City Plan¹ recognises the range of values associated with river margins. It states –

That provision for the protection of conservation values, recreational opportunities and public access to and along the margins of rivers and the coast be achieved through esplanade reserves, esplanade strips and access strips, in locations and of a width appropriate to the nature of the waterway and its adjoining land use.

(ii) Long Term Council Community Plan

The 'Long Term Council Community Plan' recognises the importance of a sustainable natural environment in its community outcomes for a sustainable Christchurch. It states –

- *Our people enjoy and value our natural environment and take responsibility for protecting and restoring it.*
- *Our City's natural resources, biodiversity, landscape, and ecosystem integrity are protected and enhanced.*
- *Our people recognise that the natural environment plays a significant role in our prosperity. The whole community ensures that negative impacts on the environment are managed to maintain environmental sustainability.²*

(iii) Waterways and Wetlands Asset Management Strategy

A values based approach underpins the Waterways and Wetlands Asset Management Strategy', a requirement of the Local Government Act 2002. The city's waterways and wetlands, including the Styx River, are assessed and managed for ecological, drainage, historical, cultural, recreational and drainage values.

¹ Christchurch City Plan, Volume Two, Page 2/11

² Our Community Plan, Christchurch O-Tautahi 20004/14 Volume One Page 24
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(iv) Styx Vision 2000 – 2040 Planning for the Future

The Christchurch City Council has worked closely with the community, experts and other organisations in the development of a 40 year vision for the waterways and wetlands associated with the Styx catchment. The vision is consistent with the City Plan and the Waterways and Wetlands Asset Management Strategy and consists of the following -

- 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*
- 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.*

MANAGEMENT ISSUES

(i) Smacks Creek Instream Values

Aquatic Ecology Limited³ has investigated the instream ecological values associated with Smacks Creek between Gardiners Road and Hussey Road. They found instream habitat values to be high, particularly when compared with other Christchurch waterways.

Along this stretch of Smacks Creek there are two springs and a range of water flow types (eg riffle, pools). Water quality is also very high.

A total of 23 different invertebrate species were identified and of these, insects were the most diverse group.

Four fish species were found. These were, in order of abundance, brown trout, longfin eel, shortfin eel, and upland bully, the latter represented by one captured specimen.

The aquatic plant flora was generally scarce although more did occur in the downstream portion where there was less overhead canopy.

The existence of high instream values associated with this stretch of Smacks Creek means that any development along its banks needs to be very carefully considered and managed.



A small brown trout from this reach of Smacks Creek.

(ii) Constructed Pond

A constructed pond located in the floodplain between Smacks Creek and the river terrace along the reserve's northern boundary was also investigated by Aquatic Ecology Limited for existing and potential aquatic values. The pond is 0.1 to 0.2 metres in depth and as it is surrounded by large deciduous trees, contains high levels of decomposing leaf litter. Although only a limited number and range of invertebrate species were found in the pond it contains several goldfish. The pond has no surface water connection to other waterways.

³ Aquatic Ecology Limited, Ecological Values of Smacks Creek, and Assessment of Enhancement Options (September 2003)

The report recommended not to modify the pond to improve instream habitat through deepening or connecting the pond with Smacks Creek as it may detrimentally affect the existing high instream habitat values already associated with Smacks Creek.

Raupo and carex currently exist around the margins of the pond. Scott Butcher, a Christchurch City Council ranger and ornithologist, recommended that this area would be suitable as a backwater wetland bird breeding area if this type of vegetation was allowed to extend across the pond.



Constructed Pond

A goldfish was caught in the baited fyke net in the foreground. The green paint-like tinge to the water at the top of the photo is likely to be a blue-green algae bloom.

(iii) Botanical values

Kate McCombs, botanist with the Christchurch City Council, has undertaken a botanical investigation of the site⁴. She states that the vegetation is quite mixed. Exotic trees and shrubs dominate the canopy (grey willow, crack willow, alder, elder silver birch and barberry) and there are some significant vine weeds growing over the trees and shrubs (old mans beard, bindweed and ivy). Below these there are blackberry, herbaceous weeds and grasses. Of greater biodiversity interest is the presence of sedges and ferns in the understorey. She concludes that the site would benefit from restoration planting. Weed control is also essential as many of the plants have pest status under the Regional Pest Management Strategy⁵.



Swamp, kiokio and sedges can be seen in the foreground. Old mans beard can be seen growing over a tree trunk in the distance.



Blackberry, bracken, male fern, and tall fescue grow on the banks of Smacks Creek. Duckweed can be seen growing on the surface of the water.

(iv) Ornithological Values

Scott Butcher investigated the reserve for existing and potential bird values⁶ and concluded that the site was valuable as a corridor for bush bird movement and as a breeding habitat for wetland bird species. Wetland bird species that may use the site include pukeko, mallard, grey duck, paradise shelduck, spur-winged plover and kingfisher. Native bush birds that probably use the site as a breeding habitat include fantail, grey warbler and silvereye. A number of introduced bird species have also been recorded in the wider Smacks Creek locality. These include dunnoek, blackbird, song thrush, chaffinch, goldfinch, redpoll, house sparrow, starling and magpie.⁷

⁴ K McCombs (June 2004) A preliminary botanical survey and weed plan for Smacks Creek Esplanade Reserve CCCECO 04/07

⁵ Canterbury Regional Council (1998) *Regional Pest Management Strategy (1998)*

⁶ S Butcher (2004) Smacks Creek Esplanade Reserve, Habitat Improvement, Issues and Opportunities for Birdlife

⁷ Crossland (1998)

Domestic cats and dogs may pose a threat by preying on adults, eggs and young and from disturbance of birds that may be nesting, feeding or roosting. Disturbance by people will also be a significant feature and careful consideration needs to be given to the location of paths.

(v) Residential Development

The area bounded by Smacks Creek, Husseys Road and Gardiners Road was previously used for grazing. Recent approval for residential development has resulted in the land being developed for housing and land adjacent to Smacks Creek set aside for reserve purposes. The reserve consists of a narrow strip of land between the houses and the southern bank of the creek and a much wider area of land to the north of the creek.

The Council has worked very closely with adjacent residents in the development of the strip of land between private properties and the waterway. It involved the removal of some willow trees affecting private property and developing an integrated fence and plant design for the interface between the reserve and the adjacent residential development. Some of the properties have installed swimming pool type fences in order to protect young children. The other fences will consist of a low rail held up by a series of wooden posts. The fences will clearly indicate the boundary between public and privately owned land and assist with future management including ongoing maintenance



Southern boundary of reserve. New residential development to the right of the picture and Smacks Creek on the left. (June 2004)

(vi) Public Access

The reserve has street frontages onto Hussey Road and Gardiners Road. As the area to the north of Smacks Creek is bounded by private property, access to this part of the reserve will require the construction of bridges across Smacks Creek.

DEVELOPMENT OBJECTIVES

The following objectives underpin the development proposal -

- To protect and enhance the existing ecological values associated with Smacks Creek and the reserve.
- To develop a walkway linking Gardiners Road to Hussey Road
- To provide a wilderness experience that contrasts with the adjacent urban areas
- To provide built structures that complement and enhance the wilderness experience through appropriate location and innovative design
- To minimise maintenance costs in the long term

DEVELOPMENT PROPOSAL

The development proposal recognises the area's existing wildlife values and seeks to enhance not only these values but also people's enjoyment of them. This will be achieved through the development of two bridges as part of a walkway linking Gardiner's Road to Hussey's Road, seating at selected sites, and a low key management approach to habitat restoration. Please refer to the landscape plan in Appendix 1.

The design of the two bridges is based on the concept of a stick being caught between the stream banks. They will also require a resource consent from Environment Canterbury. The paths consist of gravel chip and where it is low lying, boardwalks. Seating has been provided at various locations throughout the reserve and provides opportunities for people to pause and enjoy the stream and bush experience. Signage is provided at the Hussey Road entrance. Cabbage trees arranged in a formal pattern will highlight the entrances into the reserve.

Habitat restoration will involve a weed management programme with priority being given to those plants that have pest status under the Regional Pest Management Strategy⁸. These plants will be replaced with native plant species, particularly those that will provide food or roosting sites for native bush birds (grey warbler, fantail, silveryeye, bellbirds, occasional shining cuckoo). Goldfish will be removed from the pond and the pond partially filled in along the northern bank. The existing raupo and carex will be encouraged to grow across the rest of the pond and will in the longer term provide a backwater breeding area for wetland birds. Careful management of the banks of Smacks Creek itself, will ensure that no siltation degrades the existing high instream values. On going management will encourage the processes of both regeneration and decay, through the retention of tree stumps, debris, hollows and limited, careful use of chemical sprays. Special consideration will also be given to retaining trees that contain holes suitable for bird nesting.

The owner of Redwood Aquatics Aquarium and Water Garden Centre has agreed to allow access through his property to the northern portion of the reserve for maintenance purposes.

Please refer to Appendix 2 for sketches of special features.

CONSULTATION

The Council has already worked closely with residents living adjacent to the reserve in order to resolve any potential issues as well as maximise landscape opportunities through working together.

A formal consultation process has yet to be undertaken and will involve the development of a publicity brochure and submission form. This will be distributed in the local area via a letterbox drop as well as to the wider community through libraries, service centres, community notice boards and a mailout. Information about the project will also go up on the Christchurch City Council and Styx websites.

Council staff will seek to resolve any issues that may arise through the submission process. If these remain unresolved then they will be referred back to the Shirley Papanui Community Board for comment and guidance.

IMPLEMENTATION AND FUNDING

Site preparation and planting along the narrow stretch between private property and Smacks Creek occurred during June 2004 and was funded from the Styx waterways restoration budget 2003 – 04. The completion of the development will be staged with initial development focusing on weed management and habitat restoration starting in 2004 -05. This work will be continued and monitored over the following three years.

The entranceways and walkway will be developed during 2005 - 2006 and the two bridges during 2006 – 2007. Once the two bridges are completed people will then have access to whole reserve.

Estimated costs and staging are as follows -

Item	Total Cost	Staging				Budget Provision
		04 – 05	05 – 06	06 - 07	07 - 08	
Shingle Path 250m x 3m wide + 36m x 2 wide +70x 1.2m wide = 906m ²	\$27,180		\$27,180			pathway formation
Boardwalk construction 24m x 2m average width = 48m ² @ \$480 m ²	\$23,040		\$23,040			bridges & structures (new)
West bridge (Gardiners Rd)	\$24,000			\$24,000		
East bridge (Hussey Rd)	\$28,800			\$28,800		

⁸ Canterbury Regional Council (1998) *Regional Pest Management Strategy (1998)*
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Seats (5 seats @ \$850 each)	\$4,250		\$4,250			seats
Plants and planting	\$25,000	\$10,000	\$5,000	\$5,000	\$5,000	waterways & wetlands
Weed management	\$29,000	\$9,000	\$9,000	\$6,000	\$5,000	
Total	\$161,270	\$19,000	\$68,470	\$63,800	\$10,000	

Money is available in the 5 year capital works programme as outlined in the table above.

CONCLUSION

This stretch of Smacks Creek is known for its high instream ecological values, birdlife and natural regeneration of native plants that is occurring along its banks and under the taller tree canopy. The development seeks to not only build on and enhance these wildlife values but to also enable people to enjoy them. Careful location and innovative design of seating, bridges and paths will provide people with places to pause and appreciate this 'wilderness' landscape.

The implementation and completion of this project will be another important component towards achieving the long term vision for the Styx.

Staff Recommendation: That the Shirley/Papanui Community Board approve the project in principle subject to any issues that may arise from a formal consultation process being resolved to the satisfaction of the Greenspace Manager.

Chairperson's Recommendation: That the Board approve the project in principle subject to any issues that may arise from a formal consultation process being resolved to the satisfaction of the Greenspace Manager and the Community Board.