

DRAFT WAIPARA RIVER MANAGEMENT STRATEGY

Prepared by the Waipara River Working Party



CONTENTS

3	Introduction
4	What is the Waipara River Management Strategy?
5	Strategy Background
6	Physical Description of the Waipara River
8	Ecology
10	Geology
14	Cultural Values
16	Geological, Ecological & Cultural Values-Action Plan
17	Quality of the River Environment
23	Access
28	Recreation and Amenity
32	Ohuriawa (Doctors) Gorge to White Gorge
35	White Gorge to Stringers Bridge
38	Stringers Bridge to Millist Esplanade Reserve
41	State Highway 1 Bridge (Millist Esplanade Reserve to Wash Creek)
44	Wash Creek to Webbs Road
47	Waipara River Mouth
53	Members of the Working Party
54	Action Plan Summary
55	References



White Gorge Upstream



INTRODUCTION

The Waipara River is a small sized, hill-fed river located on the northern fringe of the Canterbury plains within the Hurunui District. The river flows from the eastern foothills of the Southern Alps to Pegasus Bay in the east. The Waipara River is strongly influenced by the geology and structure of the area that it flows through and contains a number of historically, scientifically and naturally important sites. The river is highly valued by the community for its natural, physical, spiritual and recreational qualities. However, the river is coming under increasing pressure from competing demands that is affecting those qualities and the community values. Vehicular access, recreational activities such as hunting and camping, and land use practices are seriously impacting on the natural, cultural, social and economic assets of the river.

The ownership regime in the river is complex with many adjoining landowners having *ad medium filum aquae* (AMF) rights. AMF rights are a common law principle that owners of land that is bounded by a (non-tidal) non navigable river are presumed to own the bed of that river to the middle of the stream, unless there is evidence or a statutory provision to the contrary. The river is also bounded in parts by an unformed legal road and by a number of small esplanade and recreation reserves owned by either the Department of Conservation or the Hurunui District Council. Where no other party owns the land, then the land is classed as un-alienated Crown land and is administered by Land Information New Zealand (LINZ).

This draft Management Strategy has grown from a community desire to better integrate the protection and management of the land and ecological values with recreational values. The strategy sets out why the community values this environment, their concerns for it and a vision for its future. The strategy is divided into three sections. The introductory section provides a description of the river system, sets a context for the partnership that is inherent to the strategy and details where the strategy 'fits' in the legislative context. The second section of the strategy identifies the different management issues. Finally, the strategy looks at the different management areas and the actions that the community wishes to be implemented in each area. The management areas of the river are as follows:

- Waipara River Mouth (from the coast to Webbs Road)
- Webbs Road to Wash Creek
- SH1 area (Wash Creek to Barnetts Road)
- Barnetts Road to Stringers Bridge
- Stringers Bridge to downstream side of White Gorge
- White Gorge to downstream side of Ohuriawa Gorge (Doctors Gorge)
- Ohuriawa Gorge to source (defined in this case as being the confluence of the three rivers)

An integrated approach to the management of the strategy will be required to fully implement this strategy.



WHAT IS THE WAIPARA RIVER MANAGEMENT STRATEGY?

The Waipara River Management Strategy (WRMS) provides a framework for managing the Waipara River now and into the future. The WRMS is based on the work of the community as represented by the Waipara River Working Party. The strategy itself is a non-statutory document and is therefore flexible to address a wide range of functions. As a strategic document, WRMS feeds in to many of Hurunui District Councils functions and other management documents such as the District Plan, Annual Plans, Long-term Community Plan (LTCCP), Reserve Management plans, financial planning and by-laws. It is also important to recognise the influence that national and regional legislation, strategy and policy documents have, such as the Regional Policy Statement, Natural Resources Regional Plan and the Reserves Act 1977. Such strategies and legislation may continually evolve and change and as such the WRMS is a “living document” and will be reviewed regularly as new information and insights become available.

The WRMS seeks to provide a balance between protecting and recognising the natural, physical and spiritual values of the river and the enjoyment of passive and active recreation. The WRMS has been developed recognising that land within the river is in various forms of ownership. The actions in the strategy are intended to provide a framework for ensuring that the key values of this environment including landscape qualities, sustainable land use and water quality are preserved for the enjoyment of both current and future generations.

The WRMS is a partnership between Hurunui District Council (the Council), Canterbury Regional Council (CRC), Department of Conservation (DOC), Tangata Whenua, riparian landowners and the communities within the strategy area. The concept of community for the purposes of the WRMS applies to all groups with an interest in the river, such as landowners, farmers, residents, visitors and developers, as well as those who visit the river to enjoy it’s recreational activities. All partners have a responsibility for different levels of investment, management and action along the river. Anyone who reads this document will have an interest in the Waipara River and its surrounds and will therefore be included in the definition of ‘partnership’. The implementation of the WRMS will rely not only on HDC and CRC initiatives but also on a strong sense of ownership and commitment from the community based on the philosophy of this document. As such, the WRMS depends on the goodwill, co-operation, collaboration, participation, and commitment from those identified as responsible for carrying out the actions.

The WRMS addresses the Waipara River from the confluence of the North, South and Middle Branches downstream. The recommendations referred to in this strategy extend to the main stem of the river and all the land between the cadastral property boundaries designating private property on the true right bank to the cadastral property boundaries designating private property on the true left bank of the Waipara River. The WRMS does not directly address the future use, management and development in regards to the tributaries of the Waipara River.

Where any future development has been proposed it is recognised that this will occur either on land currently in public ownership or land that may be identified in the Council District Plan as future esplanade reserve. Land in private ownership will not be developed with walkways or any form of public access unless this is agreed to through negotiation between the Council and the landowners. Any development is likely to occur in a staged process recognising that this is a long term strategy for the Waipara River.



STRATEGY BACKGROUND

In August 2007 members of the Waipara River Protection Group (WRPG), a group of concerned landowners with land directly adjoining the Waipara River, gave a verbal presentation to the Council outlining their concerns regarding a number of issues in the Waipara River. Their concerns related to the use of four wheel drive vehicles; the risk from fires; damage to private property; illegal rubbish dumping; poaching and killing of livestock; theft; dogs and; verbal abuse from users of the river.

At its September meeting, the Council considered the issues raised by the WRPG. The Council resolved to take a lead role in developing and facilitating solutions to the issues identified by the WRPG. The Council also resolved to co-ordinate a meeting of statutory bodies and invite WRPG and representatives from the Combined Four Wheel Drive Club. The purpose of that meeting was to ensure that all groups that had some level of statutory control over elements of the river had a common understanding of the issues. It also enabled representatives of landowners and Combined Four Wheel Drive Club to contribute their perspectives to the issues. At the meeting, attendees reached a clear consensus that the Waipara River was a special environment and that a management strategy was needed to ensure protection of the river and that the Council should take a lead role in developing the strategy.

In March 2008 the Council resolved to develop a comprehensive management strategy for the Waipara River which would set out the means to resolve conflicting uses in the river as well as protect the natural values and health of the river and the surrounding environment. The Council agreed to the establishment of a working party process to develop a management strategy for the river.

A public meeting was held in September 2008 to accept nominations for Working Party representatives from various stakeholder and community interest groups. The Working Party established ensured that all community views and interests would be captured. The Working Party meetings were also open to individual members of the public. Members of the Working Party are listed in Appendix 1.

The Working Party undertook two field trips to cover the entire length of the river. These visits highlighted those parts of the river identified as having high levels of historical, geological and cultural values and also allowed the Working Party to see first hand the inappropriate use of the river and the detrimental environmental effects resulting from this use. The purpose of the Working Party was to identify the management issues associated with the Waipara River and recommend preferred management responses to the relevant statutory agencies.

The Working Party attended a series of meetings where a variety of working papers and guest speakers were presented. The working papers are available for viewing at waiparariver.blogspot.com. There is a wealth of existing information available on the Waipara River and this has been reviewed during the background research stage of the WRMS development. A list of references is provided at the back of this document.

It should be noted that whilst the draft strategy has been built on a process of collaboration and the pursuit of consensus where possible, it is recognised that there are aspects of the strategy that not all members of the Working Party agree on. As such, all members of the Working Party, either individually or as part of their various interest groups or organisations have every right to submit into the consultation process without any restrictions to the roles they may have taken or comments contributed as part of the Working Party.

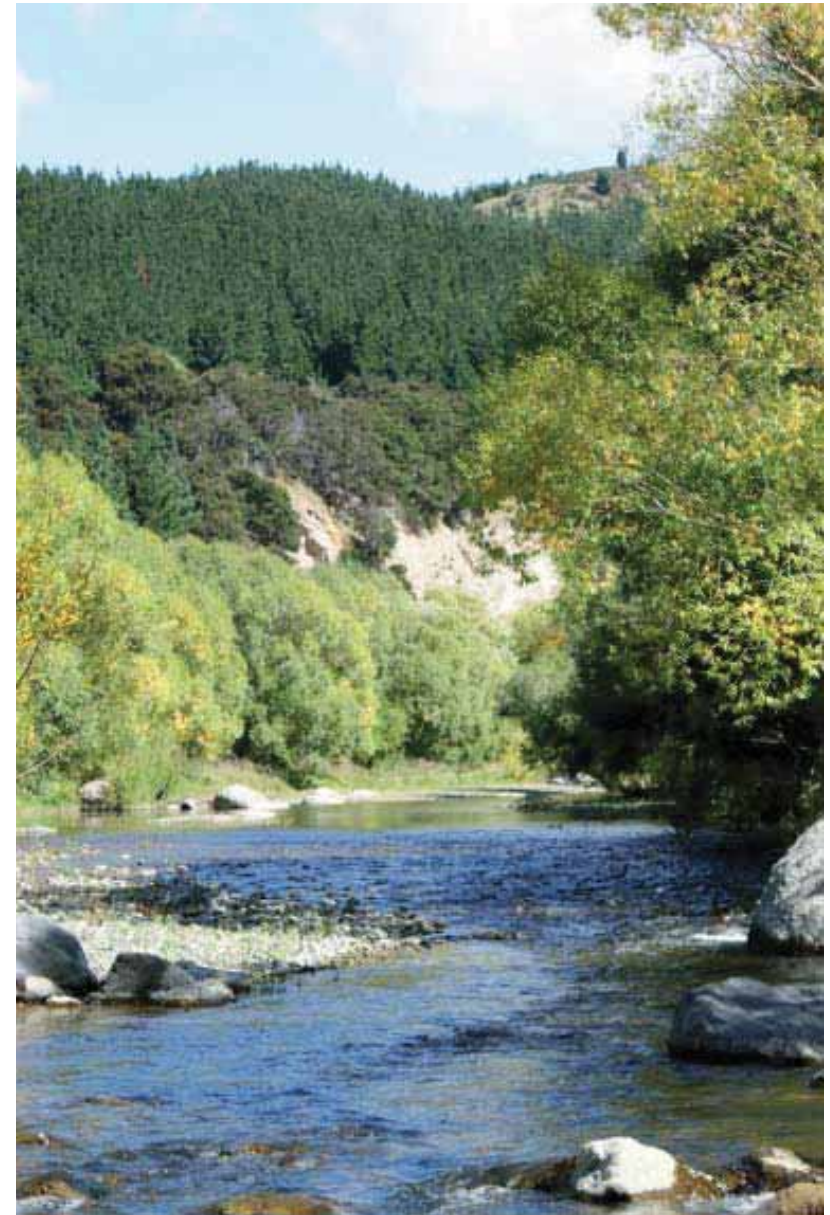


PHYSICAL DESCRIPTION OF THE WAIPARA RIVER

The Waipara River is a relatively small river situated at the northern fringe of the Canterbury Plains extending from the eastern foothills of the Southern Alps to the sea at the northern end of Pegasus Bay. The river flows some 40 kilometres from the Double Tops Range in the west to the Waipara Lagoon in the east. The catchment covers approximately 726km² and consists of foothills, an inland plain and a series of coastal hills. The catchment can be separated into two distinct parts. The steep rugged upper catchment is drained by four main tributaries; the North, South and Middle Branches of the Waipara River and Tommys Stream. The lower catchment is dominated by the wide flat plains of the Waipara Alluvial Basin and is bound to the east by coastal hills. Two main tributaries; Weka Creek and Omihi Stream flow from the north of the lower catchment into the river on the alluvial basin (Lloyd, 2002).

The river system is strongly influenced by the geology and structure of the area that it flows through. The upper catchment consists of moderate to steep hill country where greywacke and argillite sedimentary bedrock dominates. The North Branch initially flows eastwards from this hill country and then flows southward across Masons Flat, an inland basin which has formed from sediment deposits. The Middle and South Branches join the North Branch below Masons Flat to join the mainstem of the Waipara River. From the confluence of the three tributaries, the Waipara River becomes confined within the Ohuriawa Gorge as it re-enters greywacke/argillite bedrock that comprises the Doctors Hills. The Doctors Hills, together with Mt Grey to the south, form an identifiable boundary between the upper and lower sections of the Waipara Catchment (Chater, 2002). The lower catchment is dominated by a large alluvial basin that formed during the quaternary period by the deposition of glacial outwash and river gravels including some marine siltstones and sandstones (Chater, 2002). This basin is bounded by sedimentary rock types such as limestones, sandstones, mudstones and conglomerates which are all of tertiary age.

Between Ohuriawa Gorge (upstream) and White Gorge (downstream), and just before the Waipara breaks through the limestone escarpments to the west of South Dean, the river flows for about three kilometres through a depression that marks more erodible Cretaceous, Paleocene and Early Eocene formations (Fig. 1).



Waipara River



This area is one of nationally and internationally renowned geological significance. It contains an exposed, continuous geological sequence from the Cretaceous to the Miocene; and many examples of fossilised material from the Mesozoic and tertiary periods. It is one of the few sites in the world where the Cretaceous-Tertiary (K/T) boundary is exposed. The landscape is a mix of limestone escarpments, alluvial terraces, and steep rocky bluffs and cliffs. The gorge area also contains spectacular landforms caused by the action of water on limestone, including the large, perfectly rounded stones termed concretions. Below White Gorge, the river flows eastward between terraces, below the general level of the Waipara alluvial plain. Weka Creek flows into the mainstem approximately 10km downstream of White Gorge. Omihi Stream flows into the mainstem just below State Highway 1. Below the Omihi confluence, the Waipara River cuts through the sedimentary rocks of the southernmost coastal hills at Teviotdale Gorge before exiting out and flowing across a narrow coastal plain to the Waipara Lagoon at the coast. The Waipara Lagoon is an important bird habitat consisting of mudflats around a lagoon that is only open to the sea during times of larger flows, typically in winter and spring.

The water resources of the Waipara Catchment are extremely variable with the catchment being located within a dry microclimate in addition to having poor water storage. The flow regime of the Waipara River is one of high flows and floods during winter months and long periods of low flows during summer and autumn. Extended periods of low summer flows are a particular feature of the river, in which flows of less than 100 l/s can last for several weeks. Periods of low flows can extend well into winter months during some years. However, short duration high volume floods can also occur. These are more frequent in winter but can also occur at other times of the year (Hayward et al, 2003). Annual mean flow is 3.0 m³/s with a median flow of 1 m³/s (Hayward et al, 2003). Land use in the mid and upper parts of the catchment accommodates extensive dry land pastoral farming and exotic forestry. The lower part of the catchment, with more fertile soils, warmer temperatures and easier country supports more intensive pastoral farming with specialised horticulture and cropping also present (Lloyd, 2002). In recent years this has included diversification into viticulture and olive plantations. In addition to land use intensification, there has been subdivision of larger blocks of land into small lifestyle blocks. The change in land use from pastoral farming to increased afforestation in the upper catchment and increased viticultural, horticultural and lifestyle activities in the lower catchment has led to a significant increase in the use of water within the catchment. The CRC authorises abstraction of a total of approximately 1,300 l/s of water from the Waipara River and its tributaries (Chater, 2002). The total water allocated for direct use for summer irrigation is 120 l/s. The actual volume of water abstracted is indeterminate however CRC experience indicates that this is likely to be about 50% of allocation (Mosley, 2003). The Waipara River also provides rural water supply schemes operated by the Council to provide water for domestic and stock use throughout much of the catchment.



ECOLOGY

The Waipara River supports a variety of life forms and ecosystems, including indigenous plants, birds, aquatic macroinvertebrates, and fish. The Canterbury Regional Council undertakes ecosystem health monitoring on an annual basis at two sites located at Greenwoods (Teviotdale) Bridge and Laidmore Road. This involves sampling macroinvertebrates (small aquatic animals such as insect larvae, worms and snails) as indicators of the health of the aquatic ecosystem, and assessing the quality of the riparian and instream habitat.

Terrestrial vegetation

The upper tributaries of the Waipara River are generally bordered by indigenous grassland, unimproved pasture, and indigenous shrubland. A number of indigenous forest remnants are found in the upper reaches, some of which are identified in the Hurunui District Plan as Significant Natural Areas. Indigenous vegetation is limited along the main stem of the Waipara River and its lower tributaries. Three threatened species are present: *Isolepis basilaris* (in serious decline, in the upper catchment), *Muehlenbeckia astonii* (nationally vulnerable, in the lower catchment), and *Myosurus minimum* (nationally endangered, in the lower catchment) (Mosley, 2003).

In general, the banks and berms of the Waipara River are predominantly vegetated with exotic plant species including introduced grasses and other low vegetation, shrubs (gorse, broom), and trees (predominantly willows). Many of the dominant plants are spread very effectively by flowing water (Mosley, 2003).

Birds

The Waipara River provides a nationally significant habitat for indigenous birds including the endangered wrybill, black-fronted tern, banded dotterel and bittern. An assessment by O'Donnell (2000) ranked the river mouth as "High-3" (being of national to international significance for threatened species) and the river as "High-6" (use by <10% of the total population of the threatened species that are present). Use of braided riverbeds by breeding birds occurs principally during late August to January/February.

Aquatic Macroinvertebrates

The CRC has carried out a number of surveys of the river and notes that the aquatic macroinvertebrate species found in the Waipara River are characteristic of Canterbury braided rivers. The most frequently sampled species in the mainstem include mayfly (*Deleatidium*) and Elmidae larvae. The invertebrate community and habitat are graded as generally only poor to fair, with a tendency for the upstream sampling stations to receive higher gradings (Hayward et al., 2003). The available data indicates that the aquatic biota in the Waipara River is characterised by species found in a naturally unstable flow regime with long periods of low flow and periodic high flows. Disturbance by periodic high flows tends to produce a faunal community that does not include species that require stable substrates and stable algal covers.



Fish

The indigenous fish species found in the Waipara River are typical of those present in other Canterbury gravel bedded rivers. Extensive sampling of fish populations indicates that the distribution and density of fish are typical of East Coast South Island rivers with no unusual or rare species. A survey of 17 sites in the Waipara River undertaken by Richardson and Jowett (1994) identified eight native species, plus brown trout in the river. In the headwaters the native fish population is dominated by upland bullies and common river galaxias, both of which live their entire lives in these freshwater areas. In the lower reaches, mainly torrentfish, bluegill bullies, and common bullies begin to dominate. Shortfin and longfin eels are found throughout the river system. More recent surveys have also found black flounder, lamprey and koaro (Mosley, 2003) and NIWA records indicate that common smelt, Stokell's smelt and inanga are also present in the river. Of the native species, long finned eels are in gradual decline nationally. Limited numbers of trout have also been observed in the river, but the Waipara River is not a renowned trout fishery (Mosley, 2003).

Native fish densities in the Waipara River are comparable with those in other rivers in the region (NIWA miscellaneous report, 1994). Flood flows are particularly important in the Waipara with regard to maintaining an open river mouth. Freshes peaking at about 9m³/s appear to be able to open the river mouth, which permits diadromous native fish to enter the river for spawning. The natural flow regime permits entry of fish during the spawning period in most but not all years (Mosley, 2003). However, there is no evidence that restricted access to the sea, caused by the gravel bar at the mouth, has influenced the abundance of native fish. There are unlikely to be any problems with fish passage in the Waipara River given the fish species present. Eels are the only species found in the upper catchment that migrate and because of their ability to travel in small volumes of water, either as downstream adult migrants or juveniles moving upstream, low flows are unlikely to restrict movement.



GEOLOGY

The Waipara River contains a number of historically and scientifically important sites, particularly in the upper reaches of the river where the sedimentary rocks contain significant amounts of information about the history of New Zealand. The Waipara region has experienced a number of geological processes and this can be seen and studied through the rocks that are exposed in the area. Many millions of years ago the entire Waipara area (together with much of the South Island) lay under the ocean. Tectonic activity has resulted in the rocks being uplifted over many millions of years to form the landscape that we know today. Over time, the Waipara River has cut its way down through the many different layers of rock exposing them and allowing access to the information contained in them. Of historical significance, is the fact, that it was in the Waipara River, that the first fossil bones to be discovered in New Zealand were found in 1859.

The most geologically rich areas in the Waipara River are upstream of White Gorge, although there are also geologically rich areas downstream of White Gorge e.g the Double Corner shellbeds. In that area, several rock formations crop out, each with its own suite of fossils (Fig. 1). These rock units form the cover sequence that was deposited on the older Torlesse basement after Zealandia (the New Zealand continent) broke away from Gondwana. At the bottom of the pile is the Broken River Formation, comprising mostly sandstones with thin coal seams and topped by the *Ostrea* Bed. This unit is not well exposed in the Waipara River. Next is the Conway Formation, which is famous for its marine reptile fossils, mostly contained in large nearly spherical concretions. Some of these concretions contain the bones of plesiosaurs and mosasaurs. A plesiosaur was a type of carnivorous marine reptile that grew up to 12 metres in length. Specimens from the Waipara River are mostly of elamosaurid plesiosaurs that are characterised by having exceedingly long necks with small heads. Mosasaurs were giant marine lizards up to 15 metres in length with a long head with numerous teeth, stout necks and long, slim bodies and tails. Both of these marine reptiles are extinct.

The next rock unit, the Loburn Mudstone is poorly exposed and has so far yielded very few fossils. It is overlain by the Waipara Greensand, which in recent years has been the source of numerous significant fossils. Among these are the teeth of about 17 species of shark, many of which are now extinct although some are still around today.

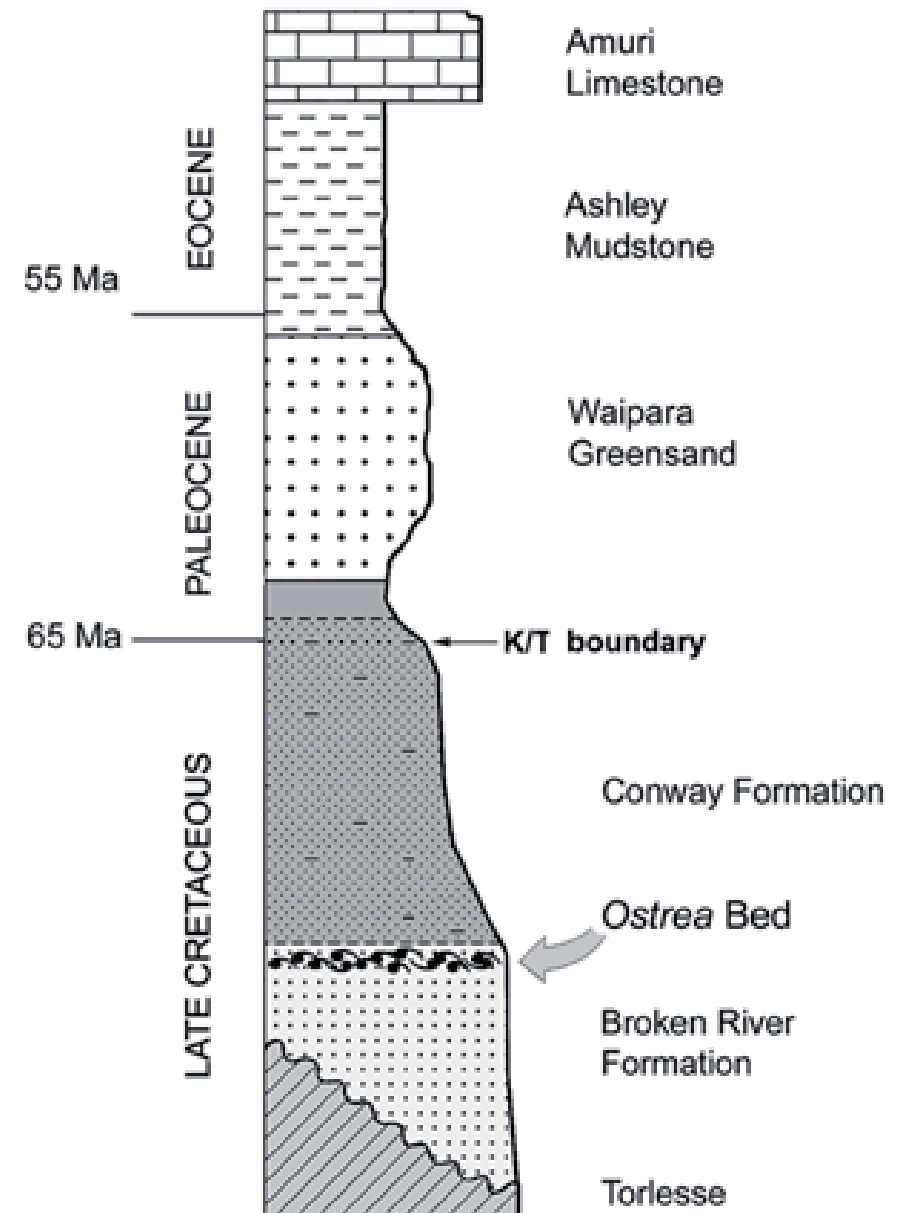


Fig. 1 Rock units in the Waipara River upstream of the White Gorge

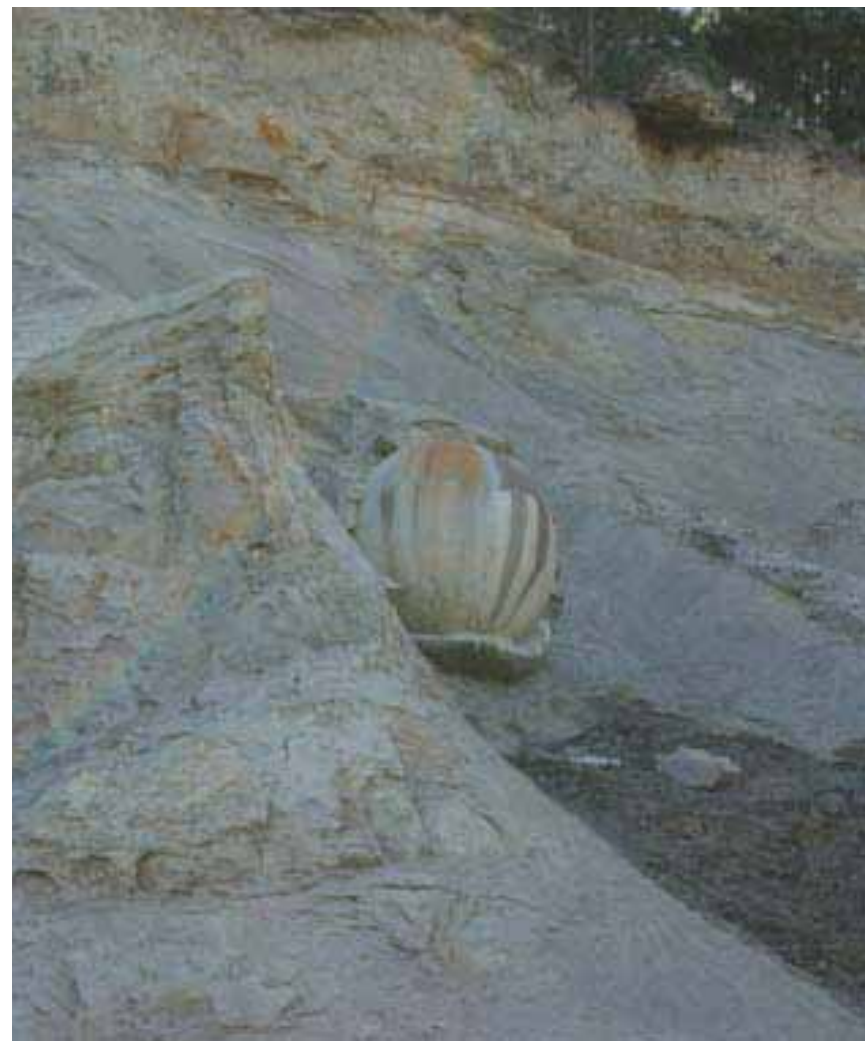


Several specimens of a very early penguin, *Waimanu*, which was first discovered in the 1980s and dubbed the “Waipara bird”, came from the greensand. More recent discoveries have allowed the characters of this ancient bird to be elucidated. The greensand is also the source of several other fossils, including the enigmatic *Waiparaconus*, once thought to be a sort of stalked barnacle, but now believed to be a relative of corals.

The Waipara greensand is overlain by Ashley Mudstone, which is not well exposed so has not provided many fossils. It, in turn, is overlain by the Amuri Limestone, a thick sequence of calcareous (limey) rocks in which several distinct units can be recognised. The presence of limestone also indicates that the land once formed part of the seabed, as limestone is a calcareous rock formed when marine shellfish and other animals of calcite structure die. The limestone is rich in fossilised shells and skeletal debris from the organisms that inhabited the warm, marine waters that were present at that time. These include marine invertebrates such as molluscs, brachiopods, bryozoans and many others. There are also a variety of trace fossils, mostly burrows, in some units.

Upstream of Laidmore Road the boundary between the Cretaceous and Tertiary periods (K/T boundary) can be viewed. The K/T boundary is a geological signature, usually a thin band, dated to (65.5 ± 0.3) million years ago. The boundary marks the end of the Mesozoic era and the beginning of the Cenozoic era and is associated with the Cretaceous - Tertiary extinction event, a mass extinction that included the end of the dinosaurs. The site on the Waipara River is one of a few places in the world where the K/T boundary is exposed.

The historical importance of these sites is recognised in the New Zealand Geopreservation Inventory. The Geopreservation Inventory aims to list the best examples of a wide diversity of natural and physical features and processes that characterise each part of New Zealand and document their complex geological / geomorphological history.



Concretions found downstream of Laidmore Road



The Geopreservation Inventory includes five sites in the Waipara River. These sites are also recognised in the Hurunui District Plan as Significant Natural Areas (SNA) as follows:

SNA Site	Map	Name	Description	Importance	Vulnerability
G30	3	Double Corner shellbeds	Diverse waiauan mollusca of Miocene origin in riverbanks and hillside	C	3
G31	3	Euscalpellum locality	Unique occurrence of abundant “barnacle” stalks of international interest	A	3
G34	3,6	Waipara River Cretaceous-Palaeocene sequence	One of the most complete and well exposed sequences in New Zealand	A	3
G35	3	Waipara River Cretaceous “saurian beds”	The most prolific late cretaceous marine reptile locality in New Zealand	A	2
G36	3	Waipara River plio-pleistocene land molluscs	Unique pre-hawera land molluscs		
G40	2,4	Greenwood formation Pliocene fauna	Best of very few late Pliocene shallow-water faunal localities in North Canterbury	C	3

Section A7 of the District Plan sets out rules and standards for the protection of Significant Natural Areas. Rule A7.2.2 of the District Plan states that, ‘No feature, tree, or vegetation in an area listed in the Schedule of Significant Natural Areas shall be damaged, removed or destroyed, except for exotic vegetation. This effectively means that any person wishing to remove, damage or destroy any of the geological features requires resource consent to do so.

With respect to the importance of these sites, the Geopreservation Inventory uses the following classification system to identify the ‘importance’ and ‘vulnerability’ of sites:

Importance:

A = site of international scientific importance

B = site of national scientific, educational or aesthetic importance

C = site of regional scientific, educational or aesthetic importance



Vulnerability:

1 = highly vulnerable to complete destruction or major modification by humans [i.e. small and/or fragile, could be destroyed by geological hammer]

2 = moderately vulnerable to modification by humans [i.e. could be destroyed by a bulldozer]

3 = unlikely to be damaged by humans [i.e. large or robust, not destroyed by either of the above]

4 = could be improved by human activity [e.g. weed spraying on or around the feature]

Therefore, three of the sites within the Waipara River are of international scientific importance with the vulnerability of the Waipara River Cretaceous “saurian beds” being moderately vulnerable to modification by humans.

The community is concerned about the potential damage to these special sites from inappropriate vehicle use. Fossil sites and many smaller scale features cannot withstand the impact of human activities. Many of the fossilised beds are located on the banks and under the bed of the Waipara River and as such, they are particularly vulnerable to crushing and damage from motorised vehicles in these areas. Furthermore, the location of these historically and scientifically important sites is within an area of the Waipara River that is subject to AMF rights. Therefore, there is in actual fact no public access via Laidmore Road as this section of the river is effectively in private ownership. The only pedestrian and vehicular access to the geologically sensitive areas is across private land and as such the consent of the relevant landowners is required. It is noted that landowners in this section of the river have a long history of cooperating with scientists, students and hobbyists wishing to study the geology and fossils, as well as with walking groups and the general public.

Another concern of the community is whether the existing level of protection is sufficient particularly given the international significance of some of these sites. In this regard, it would seem that the provisions of the Hurunui District Plan are ineffective. In the past, visitors to the Significant Natural Areas including scientists, amateur collectors and the public in general have collected numerous fossils without applying for resource consent to do so. This is probably due to people being unaware that resource consent is required and therefore the provision of some form of education or information for the public could be beneficial in this respect. Rare fossils and natural artefacts can be vulnerable to over-collecting and some of the more unique specimens should be deposited in museums where they can be studied in detail and interpreted in displays for the public’s benefit. In many instances, it may be best that fossils are left in the rocks so information about their settings can be obtained. However given the fluctuating nature of the river, fossils are continually being eroded from the river banks and washed down stream, so this information may be lost in any case.

Another issue identified by the community, is that the sites identified in the District Plan may not include all the geologically significant sites within the river. There is still a large amount of research being undertaken in the river and as such, there could potentially be other significant sites that are yet to be discovered.



CULTURAL VALUES

Māori have long held an association with the Waipara River as it was once a significant mahinga kai and was part of the trading routes along the coast. The importance of the Waipara River and lagoon are reflected in the Statutory Acknowledgement under the Ngāi Tahu Claims Settlement Act 1998. This means that the Council must forward all relevant resource consents to Te Runanga o Ngāi Tahu and that the Historic Places Trust or the Environment Court must have regard for the statutory acknowledgement, to empower officials to enter into a deed of recognition and to give Ngāi Tahu Whānui proof of their long affiliation with the river. The Statutory Acknowledgement summarises the history that Ngāi Tahu Whānui have with the Waipara River in the following reference:

“Tradition tells of the duel between two famous rangatira (chiefs) which happened in this are. Tutewaimate, a Ngāti Māmoe rangatira, found that the northward trade route that he had sent his goods along with being disrupted by Moko, a rangatira of the Ngati Kurī hapū of Ngāi Tahu who had been acting as a bandit along the route. Tutewaimate went to confront Moko, who lived in a cave at Waipara, but found him sleeping. Tutewaimate allowed Moko to awake before attacking him. Tutewaimate’s sense of fair play cost him his life and is recalled in a tribal proverb.

There are a number of Ngāti Wairaki, Ngāti Māmoe and Ngai Tahu urupā and wāhi tapu along the river and associated coastline. Urupā are the resting places of Ngāi Tahu tūpuna and, as such, are the focus for whanau traditions Urupā and wāhi tapu are places holding the memories, traditions, victories and defeats of Ngāi Tahu tūpuna, and are frequently protected by secret locations.

The [Waipara] river and associated coastline was a significant mahinga kai, with kai moana [sea food], particularly paua, being taken at the mouth. The tūpuna had considerable knowledge of whakapapa [genealogy], traditional trails and tūranga waka [places for gathering food and taonga], ways in which to use the resources of the river, the relationship of people with the river and their dependence on it and tikanga [customs] for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today. The mauri of the Waipara River represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whānui with the river.”

Schedule 74 Ngāi Tahu Claims Settlement Act 1998

The deed of settlement signed under the Ngāi Tahu Claims Settlement Act 1998 also includes redress in the form of nohoanga camping entitlements. Nohoanga entitlements give Ngāi Tahu the exclusive right to camp temporarily at certain sites situated near rivers and lakes to facilitate customary activities such as fishing and gathering of other natural resources like plants. These nohoanga sites can only be created over Crown land within the claim area. Nohoanga sites are located at traditional food gathering sites and do not allow for commercial use of the site. There are a total of 72 nohoanga spread throughout the South Island with each one around one hectare in size. The entitlements are seasonal and are a ‘right to occupy’ a site for up to 210 days per year between mid-August and the end of April. A nohoanga right is not a permit to kill species that are otherwise protected by conservation legislation. Public access to rivers or fishing rights are not affected within the designated area. There are two nohoanga sites within the Waipara River. The first of these is located at the riverbed at the Waipara River Mouth, opposite Lot 1 DP 17853. The second site is located part within the Waipara River bed adjoining Barnetts Road, Waipara.



There are a number of urupā (burial sites), waahi tapu (places of particular significance to local Māori that hold an element of sacredness due to a certain event), and waahi taonga (culturally, spiritually, physically and historically significant items) located in close proximity to Waipara River. The location of many of these sites is protected although the following sites are identified in Appendix A8.2 of the Hurunui District Plan – Schedule of recorded archaeological features:

No.	Map	NZAA	Description
A2	2	N34/1	Pa with middens
A5	2	N34/2	Midden(s), oven(s) & pit(s)
A10	2	N34/3	Habitation cave or shelter without art
A11	2	N34/5	Habitation cave or shelter without art
A22	2	N34/10	Oven(s)/midden(s)
A23	2	N34/11	Oven(s)/midden(s)
A37	2	N34/6	Pit(s)



The Waipara River lies within the takiwā of Te Ngāi Tūāhuriri. On behalf of the Whanau of Ngāi Tūāhuriri, the Ngāi Tūāhuriri Rūnanga would seek to have the following key outcomes recognised and provided for within the future management of the Waipara River:

- Protect and enhance the mauri of the river
- Protect all sites and values of tapu and taonga significance to Ngāi Tahu within the catchment of the river
- Enhance access by members of local Papatipu Rūnanga
- Protect mahinga kai values significant to Ngāi Tahu within the catchment of the river and the ecology that supports those mahinga kai values
- Adopt catchment management as the means to achieving integrated management of the Waipara River and its tributaries
- Improve and restore degraded water quality within the river
- Provide a flow regime that adopts the priorities established in the Te Rūnanga o Ngāi Tahu Freshwater Policy
- Implement a flow regime for the river
- Preserve the existing natural ecological dynamics and habitat that support healthy populations of native fisheries and aquatic organisms
- Protect native bird and plant habitats with values within the river catchment
- Preserve the existing natural wilderness character and ecological conditions of the river catchment
- Adopt a precautionary approach to conversion of land use within the Waipara River catchment



GEOLOGICAL, ECOLOGICAL & CULTURAL VALUES - ACTION PLAN

<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
Improve knowledge of and appreciation of ecological values important to the Waipara River	Support ongoing research and monitoring of ecological values	- Identify timing and funding for ongoing research and monitoring	Medium	HDC
	Promote community-based programmes such as “River Care”, as well as Council-led programmes	- Hold open days displaying information on protecting ecology of Waipara River - Update website regularly with information	Medium	HDC, CRC, DOC
	Initiate a regime of regular ecological surveys of the Waipara River	- Identify timing and funding for ongoing research and monitoring	Medium	DOC
Improve knowledge of geological values within the Waipara River	Support ongoing research of geological values within the River		Medium	HDC



QUALITY OF THE RIVER ENVIRONMENT

Plant and Animal Pests

The Waipara River has extensive infestations of invasive naturalised plant species, including old man's beard, willow, gorse and broom. The presence of these infestations of naturalised plants poses a threat to adjoining farmland, may compromise the integrity of the riverbanks in places prevent access over the berm lands and is unsightly. Animal pest species are also present in the riverbed, notably rabbits, possums and small predator species. Animal pests threaten indigenous and introduced animals, including game birds and may threaten restoration plantings.

The legal obligations for plant and animal pest control are set out in the Canterbury Regional Pest Management Strategy 2005-2015. The Strategy provides a framework for efficient and effective management or eradication of specified animals and plants in the Canterbury region. The Strategy identifies the animals and plants that are classified as pests and also identifies other organisms that are to be controlled under the strategy in targeted high value environmental areas. There are also other organisms that are not formally included in the Strategy but are to be monitored through a Surveillance Project undertaken by CRC. Under the Pest Management Strategy, landowners are responsible for carrying out specified control of plants and animals declared as pests and there are regulatory procedures in place for those land occupiers that do not comply with the Strategy rules.

Willows

Willows were initially introduced into many Canterbury rivers as a means of bank stabilisation. The historical removal of indigenous forest from floodplains and riverbanks to enable pastoral agriculture had the unwanted side effect of accelerating bank erosion rates. The response has been to plant willows along thousands of kilometres of riverbank to replace the trees whose roots formerly resisted bank erosion. Some willow species such as grey willow (*Salix cinerea*) and crack willow (*Salix fragilis*) spread rapidly by stem fragments carried by water movement. Grey willow also spreads by seed or suckering from the roots. Crack willow is the predominant willow species in the Waipara River although grey willow was also observed on the field trips.

Willows are becoming increasingly well established in the river corridor and it appears that the Waipara's flood flows are unable to keep the riverbed clear. Bare gravels are being replaced by vegetated floodplains and islands. Encroachment by vegetation is converting it to a narrower, anastomosing river rather than a braided river. An anastomosing river is one that has several stable channels that flow between more or less permanent islands, as distinct from a braided river in which the braids and gravel bars are unstable and impermanent and change position with each flood. Mosley (2003) identifies that in many places the channel width has been reduced by 50-70% during the last 50 years. Mosley notes that to maintain the existing river form would require that floods be maintained or increased in size, frequency and duration, although the present trend may be to re-establish a more natural, pre-settlement river.

A method that has been utilised for the control of willows in other river catchments has been through the establishment of a river rating district. There are about 60 such schemes in place for rivers in Canterbury. One example in the district is the formation of a working group for the Kowai River. The working group is driving a proposal to form a river rating district on the river's north branch. This would see people whose land adjoins the river contributing an annual rate of \$44 per \$100,000 of capital valuation, towards clearing and maintenance of trees along the river.



In the Kowai River example, CRC and the Council have agreed to pay 25% of the annual costs. Landowners are currently being asked their opinion on the scheme via a postal vote. It is noted that overall, the financial input is expected to save ratepayer money as each time the river floods, significant damage is caused to roads and bridges.

Preliminary discussions with Environment Canterbury have indicated that the likely cost of establishing a river rating district, could be in the vicinity of \$10,000. In addition, a river rating district is generally only considered appropriate where there is a high potential risk of flooding. For instance, in the above example, there is a high flood risk for the Leithfield Township. The risk of flooding in the Waipara River may not be considered high enough to warrant the establishment of a river rating district, however it is considered that a river rating group could be established on a wider basis, especially for the control of willows and other plant pests.

Gravel Extraction

Gravel extraction is an important tool for the management of aggrading rivers (with rising riverbeds). Riverbed gravels can be removed to maintain or increase flood capacity, correct undesirable river alignments, reduce bank erosion, and prevent course change onto the adjoining floodplain. A managed gravel extraction regime can reduce river management costs, and improve flood control effectiveness. On the other hand, excessive gravel extraction, or extraction from degrading rivers (with falling beds) can pose an undermining threat to flood protection and erosion control works.

The input, movement and deposition of gravel in riverbeds is episodic and is affected by factors such as catchment erosive potential, channel and bank condition, and flood size and frequency. The correct management of gravel extraction can therefore be difficult, requiring an ongoing monitoring and review programme, and the ability to target gravel extraction in terms of location, quantity and timing.

Gravel extraction activities in the Waipara River are controlled by the Proposed Natural Resources Regional Plan (NRRP) and the Hurunui District Plan. The Canterbury Regional Council has approved seven resource consents for gravel extraction with a total volume of approximately 79,000m³ per annum. These activities are located around the end of Webbs Road and generally within the vicinity of the State Highway 1 Bridge. CRC gravel extraction consents are currently monitored by CRC.

The effects of gravel extraction are wide-ranging, some positive and some negative. Recreational activities can be affected by gravel extraction. Recreation is restricted at gravel extraction sites by noise and safety concerns, e.g. no picnicking or swimming. Where extraction occurs in flowing water, the water becomes dirty from disturbed sediment deterring swimmers and detracting from amenity values of the river. Extraction can also change the riverbed area either improving or deteriorating the areas for recreational activities.



The ecological effects of gravel abstraction activities can be wide ranging, depending upon the extraction method and the environment being quarried. Gravel can be extracted intensively from confined areas, or extensively over large areas, and over short or long timeframes. It can also be taken anywhere from the 'wet' flowing channel, from dry or 'wet' pits on the river fairway, from 'skimming' or 'scalping' the fairway, or through to excavating higher floodplain areas inundated only on extreme events.

Community infrastructure such as road and rail bridges and water supply or irrigation intake structures, can be threatened by river bed aggrade or degrade. In the case of excessive degrade, bridge abutments could be undermined and pile exposure above bed level could increase, with a resultant increase in the risk of undermining due to scour, or damage during earthquake.

Sediment supply to the Canterbury coast is derived from numerous sources such as, but not exclusively, rivers, eroding cliffs, eroding beaches themselves and longshore transport from other parts of the coast. Whether a beach is stable, accretionary or erosional, is dependant on the balance between the quantity of sediment entering the coastal system and the quantity of material being lost from the system. Any reduction in the supply of sediment to the coast could cause a change in this balance, either initiating erosion or exacerbating erosion on an already erosional beach. The effects of fluvial extraction on coastal stability may not be immediately obvious. It may take some time, possible years or even decades, for any bedload deficit to the coast to manifest itself by way of a change in erosion rates. The difficulty arises when trying to quantify the potential impacts of gravel extraction on coastal erosion. Generally this must be done using a sediment budgeting approach but unfortunately, quantities of the various components which go into constructing coastal sediment budgets are still not known to any certainty.

Gravel extraction can also have an effect on groundwater quality. If gravel extraction occurs from the bed of a river above a shallow, unconfined aquifer, there will be a reduction in the depth of gravel above the aquifer. With a reduction in gravel depth between the bed of the river and the underlying aquifer, the potential exists for leakage from the river into the shallow groundwater system. Leakage of river flow into groundwater may also result in any contamination within the river flow to filter downwards into the groundwater system.

A report prepared for Environment Canterbury in 2006, 'Waipara River report status of gravel resources and management implications' provides a review of the changing bed profile in the river and extraction records to assess the available gravel supply. The report concludes that there is likely to be a sustainable gravel supply of around 2,000m³/y. The report notes that the current rate of gravel extraction (average of 14,900m³/y from 1994 to 2005) is well in excess of what can be sustainably taken without lowering the river bed levels.

The report recommends that a monitoring programme to record river bed levels for use in assessing bed status and changes should be commenced. In addition, to decide whether further gravel extractions from the Waipara River should occur in the future (and if so where from and in what quantity) an assessment of the required and existing flood capacity and minimum bed levels to protect infrastructure is required. This assessment would yield design bed levels against which river management decisions could be made.



Rubbish

The disposal of rubbish, especially household waste, garden waste and abandoned vehicles is an important management issue. Rubbish is removed periodically from the river at a cost to the Council and CRC. However, getting rubbish out of the river, particularly with respect to car bodies and larger appliances can be problematic. In many instances, the areas where material has been dumped can be inaccessible to vehicles required to remove the rubbish. Illegal dumping of waste can be detrimental for the environment in a number of ways. Illegal dumping can disrupt natural processes on land and in the water. Dumped household appliances and cars are not only an eyesore, but can also release toxic chemicals. The run-off from improper disposal of toxic substances such as motor oil or household cleaners can contaminate the river. Dumping of household waste can attract pests and diseases. Garden waste can contain weed seeds and vegetation fragments that may establish and become a nuisance.

The illegal dumping of waste is an offence against the Litter Act 1979. The Council has a number of available enforcement options including the issuing of an infringement notice (maximum \$400 fine) or prosecution through the Courts. The penalties of being found guilty at Court are high and result in a fine of \$5,000. If the illegally dumped litter was of such a nature as it could endanger any person (example - any bottle whether broken or not, glass, article containing glass, sharp or jagged material, or any substance of a toxic or poisonous nature), those responsible could be sentenced to a maximum of one month imprisonment and/or a maximum fine of \$7,500.

Water Quality

The Canterbury Regional Council currently measures the water quality of the Waipara River at four sampling sites on a quarterly basis (once every three months). These sampling sites are situated at Laidmore Road, Stringers Bridge, Mt Cass Road and Greenwoods (Teviotdale) Bridge. Field measurements are taken of dissolved oxygen and temperature and the samples are analysed in the laboratory for pH, conductivity, turbidity, suspended solids, dissolved organic carbon, nitrate-nitrite nitrogen, ammonia-nitrogen, total nitrogen, dissolved reactive phosphorus, total phosphorus and E. coli. Environment Canterbury's water quality scientists believe that the Waipara River is one of the most well studied rivers in terms of overall water quality and invertebrate numbers.

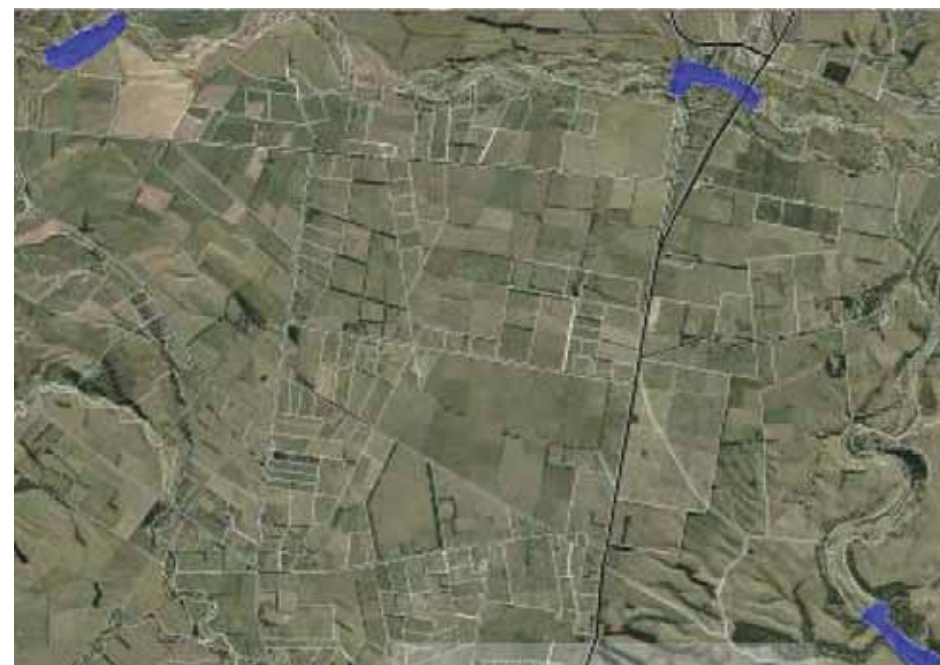
A report completed in 2003 by the Canterbury Regional Council (Hayward, et al.) provided an assessment of the water quality and ecosystem monitoring of the Waipara River from 1999 to 2002. The report concluded that periphyton growth and consequent loss of aesthetic and aquatic ecosystem values were the main water quality issue in the Waipara River. The development of periphyton is a complex interaction between nutrient supply and flow regime therefore managing adequate flows will be important for managing periphyton. The report notes that ongoing monitoring of the Waipara River on a quarterly basis will provide valuable long-term data on trends in the river.

Mosley (2003) identifies the water quality in the Waipara River as being better in many respects than that of other Canterbury rivers that rise in the hill country. The report notes that water temperatures at Stringers Road and Teviotdale Bridge often exceed 20 degrees Celsius and periodically exceeds 25 degrees Celsius and that it is likely that higher temperatures are experienced in the semi-braided reach from Stringers Road to the Omihi Stream confluence.



The report concludes that the concentrations of dissolved organic nitrogen and dissolved reactive phosphorus in the river are such that the Waipara River is classified as eutrophic; bacteriological water quality is better than the guideline for contact recreation for much of the time, but shows some signs of contamination by livestock.

In terms of the Canterbury Regional Council's Proposed Natural Resources Regional Plan (NRRP), the grazing of livestock in the riverbed is essentially permitted, provided that it does not have a significant effect on the quality of water in the river. However, there are some areas where livestock is not allowed in riverbeds to protect areas which have particular values (e.g. areas of high contact recreation, fish habitats and drinking water intakes). There are three areas identified in the Waipara River as being high recreational contact areas. These are located at Stringers Bridge, Boys Brigade Camp and Greenwoods Bridge. The stock prohibition area includes a 1km buffer upstream from the recreational contact area. The following map identifies the livestock grazing prohibition areas in blue.



Live stock prohibited areas shown in blue



QUALITY OF THE RIVER ENVIRONMENT - ACTION PLAN

<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
To sustain, protect and enhance the natural character of the Waipara River	Co-ordinate pest and weed control activities of all agencies and landowners	<ul style="list-style-type: none"> - Work collaboratively with landowners to develop pest control strategies - Work collaboratively with landowners to support community initiated control of pests 	High	HDC, CRC, Landowners
	Reduce current levels of pests and weeds	<ul style="list-style-type: none"> - Investigate the formation of a river rating / pest group - Carry out an exercise to scope costs to remove willows from the fairway of the river - Notify landowners of any new potential pest and weed threats - Ensure that CRC has suitable pest and weed benchmarking and monitoring programmes in place 	Medium	HDC, CRC, DOC, LINZ, Landowners
	Ensure that the gravel abstraction consenting process is based on sound data and current environmental conditions	<ul style="list-style-type: none"> - Establish a monitoring programme to record river bed levels for use in assessing bed status changes and minimum bed level to protect infrastructure 	Medium	CRC
	Maintain water quality and habitat in the mainstem of the river	<ul style="list-style-type: none"> - Ensure that suitable monitoring programmes are in place; especially at high risk areas - Ensure water quality monitoring data is easily accessible to the public 	High	CRC



ACCESS

The public has a long held expectation that they have unrestricted access to and along water margins. For Māori, this expectation is based on customary access and use of coastal resources, confirmed by the Treaty of Waitangi. For other New Zealanders, this expectation is founded on a legal history of reservations along water margins for public use.

The 'Queen's Chain' is often used to describe land under various mechanisms and legislation that provide access along river margins. Most people understand the Queen's Chain to be a 20 metre strip along the edge of substantial rivers, lakes and the coastline, and owned by the Crown or local authority. It is assumed that the public has a right of access along this strip. However, the legal reality is quite different. At no time has New Zealand law established that the public has full rights to access, or use of land alongside all rivers, lakes and the coastline. Over time, a number of different statutes have established partial public ownership of land along water boundaries. However, it is often difficult for the public to ascertain exactly where there is public access and where there is private land with no right of access. This is particularly the case in the Waipara River where many properties have *ad medium filum aquae* (AMF) rights to the middle line of the river.

Ad medium filum aquae rights

AMF rights is a common law principle that owners of land that is bounded by a (non-tidal) river are presumed to own the bed of that river to the middle of the stream, unless there is evidence or a statutory provision to the contrary. AMF rights are limited and do not include rights to interfere with the natural flow of a river to the injury of other riparian owners, nor to interfere with rights that have accrued to the public. The boundary of the property is liable to move with the river. The ownership rights are therefore not complete rights, and accordingly will not generally be recorded on the computer register.

There is no requirement to "claim" AMF rights through any official process. At common law, the default position is that the presumption will apply and the owners of riparian land on non-tidal and non-navigable rivers own the land under the river to the centre line. Whether riparian owners along the Waipara River have property rights to the middle of the river bed will depend upon several factors and specific assessment of each parcel of land. However, it is acknowledged that many of the properties adjoining the Waipara River are subject to AMF rights and as such large sections of the riverbed are considered to be in private ownership. Therefore, any person wishing to access those parts of the river subject to AMF rights are required to get the permission of the relevant landowners.

The New Zealand Walking Access Commission has released the Draft New Zealand Outdoor Access Code ('the Code'). The Code was developed in response to a requirement under the Walking Access Act which came into force in 2008. The Act established the New Zealand Walking Access Commission, which now provides a central point for the co-ordination of all walking access in New Zealand. The Code notes that there is no right of access over private land. Owners of private land have an inherent right of exclusive occupation and enjoyment of that land. This right is enforceable by the provisions of the Trespass Act 1990 which provides for the rights of an occupier of land to deal with any person that unlawfully enters onto land.



Unformed legal roads

Most of the road network in New Zealand was created by reservation of land on the initial sale of land to settlers. The water margin reserves generally took the form of legal road. Not all the land set aside as road has been formed into recognisable surfaced roads and the water margin land reserves as road was, for the most part, never intended to be formed. These water margin reservations were created as roads, as this was the most convenient and secure legal form available at that time to ensure that this land was kept for public use.

Unformed legal roads or 'paper roads' as they are often referred to, are no different in law from formed roads. That is the public have the right to use them on foot, on horse, or in vehicles without hindrance from the adjacent landowner or anyone else. There is a right to assert unhindered passage at all times, however, this right only applies to the unformed legal road and any deviation off the unformed legal road onto private property, is trespassing. In terms of the Waipara River, there is an unformed legal road along the north bank of the river from Stringers Road Bridge to approximately 1.5 kilometres upstream of White Gorge.

Esplanade strips and reserves

Section 6 of the Resource Management Act 1991 (RMA) makes provision for the creation of esplanade strips and reserves on land adjoining the river where subdivision has occurred. Esplanade reserves, esplanade strips and access strips, collectively referred to as esplanade areas, are statutory mechanisms to protect riparian and coastal margins. The protection of these margins helps to conserve environmental values and provides opportunities for public access and recreational use.

Esplanade reserves may be required when land is subdivided or alternatively they can be created voluntarily. They are classified as reserves under the Reserves Act 1977 and land ownership is transferred upon deposit of the subdivision plan to the territorial authority. The boundary of an esplanade reserve is measured from the bank of the river and the landward line is a fixed survey line. Accordingly, the landward boundary does not change as the water boundary accretes or erodes. There are two esplanade reserves located adjacent to the Waipara Boys Brigade Camp in the State Highway 1 bridge area. The westernmost reserve is owned by Hurunui District Council with the easternmost reserve being owned by the Department of Conservation.

An esplanade strip is a form of easement over water margin land, created in favour of the territorial authority. They are usually created at the time of subdivision and are a width of 20 metres or less. The easement is registered on the certificate of title, but the land within the strip remains in the ownership of the land owner. Although identified on a survey plan, they do not need to be formally surveyed. The creation of a strip, and restrictions and requirements relating to its use and management, are noted on the title and bind every party having an interest in the land. The form of the agreement and standard restriction to be imposed on an esplanade strips are defined in Schedule 10 of the RMA. Esplanade strips can include provisions to exclude access by the public during certain time or under certain conditions. Unlike esplanade reserves, the width of an esplanade strip remains unchanged within the same allotment. So if a river bank is eroded by 2 metres, the width of the esplanade strip then extends beyond its old boundary by 2 metres to offset the lost ground.



Under the RMA, esplanade reserves or strips are mandatory in the case of subdivision to lots of less than four hectares. No compensation is payable to the landowner, as the benefits accruing from the subdivision can be seen as compensation for the reserve or strip that is taken.

The Hurunui District Plan provides for the establishment of esplanade reserves or strips in respect of subdivision of four or more hectares along the Waipara River. However, the RMA requires that compensation must be paid to the landowner. The requirement for compensation greatly limits the likelihood of the creation of esplanade reserves, or strips on subdivision of lots of four hectares or more. Furthermore, the provision of a 20 metre wide esplanade strip along the margins of the Waipara River is not practicable in many instances given the topography of the land adjoining the river.

Access strips

Access strips are created by an agreement between a territorial authority and a landowner, and are easements over land for a defined purpose and for specific users, rather than for general public access. They are similar to gazetted walkways in that they are surveyed, recorded on the certificate of title and do not move if the waterway moves, and ownership remains with the landowner.

Land Transport (Road User) Rule 2004

Under the Land Transport (Road User) Rule 2004, a road is interpreted as including:

- (a) a street; and
- (b) a motorway; and
- (c) a beach; and
- (d) a place to which the public have access, whether as of right or not; and
- (e) all bridges, culverts, ferries and fords forming part of a road or street or motorway or a place referred to in paragraph (d); and
- (f) all sites at which vehicles may be weighed for the purposes of the Act or any other enactment.

Under this very definition, the Waipara River bed is considered to be a road as the definition provides that a road includes a place to which the public have access, whether as of right or not. Accordingly, any users of the Waipara River must comply with the relevant provisions of the Road User Rules. These include complying with the appropriate speed limits; vehicle must have a current warrant of fitness and registration; operating a vehicle that creates noise that is excessive and; operating a vehicle on or in which is carried a firearm that is loaded with a bullet.

Where we are now

The research and consultation undertaken both prior to and during the development of this strategy has identified the key issues with regard to access is that adjoining landowners with AMF rights would like users of the river to respect their private property rights, and conflicts between users. These are generally



conflicts between those enjoying the 'peace and quiet' values of the river and surrounding environment, such as adjoining landowners, hikers, swimmers and fisherman, and those who chose to use motorised vehicles in the river bed, as well as conflicts between public access and landowner rights/safety and security issues. Motor vehicle use has encouraged misuse and vandalism in the river, notably dumping of garden waste and rubbish (including vehicles) and destruction and vandalism of private property. Vehicles can also cause damage to the river banks through erosion and sedimentation of the river affecting water quality and clarity.

In general the community agreed that the Waipara River boasts some unique features and special values and that there is a desire to maintain some form of access balanced with recreational opportunities in this environment provided that natural features, fossil deposits and ecosystems are protected from the impacts of vehicles.

Horse riding, cycling and pedestrian access are presently provided for informally within the riverbed on tracks and open ground. These are shared tracks that are generally used by motor vehicles. Purpose built tracks established elsewhere, such as at Bottle Lake Plantation and in the Waimakariri River Regional Park, have proved very popular. The Waipara River offers good potential for the development of such tracks on Crown land or areas where adjoining landowners with AMF rights will allow this type of development.



ACCESS - ACTION PLAN

<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
Minimise the impacts of vehicle use on natural and environmental values	Control motor vehicle use to specified areas within the Waipara River as identified in the management sections of the strategy	<ul style="list-style-type: none"> - Develop a motor vehicle access bylaw restricting motor vehicles to certain management sections of the river - Adopt a Code of Practice for vehicle use which includes: <ul style="list-style-type: none"> (a) the 'Tread Lightly' principles (b) hours of operation in relation to the use of motorbikes and ATV's (c) the requirement for vehicles to be road legal (d) that vehicles be appropriately muffled 	High	HDC
Provide pedestrian access throughout the riverbed	That landowners and statutory agencies work collaboratively to establish walking access across the length of the river	<ul style="list-style-type: none"> - Through the existing provisions in the District Plan requiring the creation of esplanade strips on subdivisions adjoining the river. - That the Council establish a separate fund to meet the requirements for compensation. - Encourage adjoining landowners to provide voluntary pedestrian access through the provision of access strips 	Medium	HDC, CRC, DOC
Provide for horse riding and mountain biking	To continue to recognise that horse riding and mountain biking are acceptable activities in the Waipara River bed	- To acknowledge horse riding and mountain biking within any signage and education material	Low	HDC, CRC, DOC
		- To develop a dedicated mountain bike track on the south side of the river in the area between Webbs Road and Golf Links Road	Low	HDC, CRC, DOC



RECREATION AND AMENITY

The Waipara River has a long history of being a significant recreational asset to the community. There is a range of land and water based activities provided for on the Waipara River including walking, picnicking, swimming, fishing, hunting and camping. People are attracted to the river for its semi wilderness nature, distinctive character, to enjoy the outdoors, engage with nature and to make use of the recreation and leisure opportunities it provides.

Fishing

The Waipara River is not a particularly popular river for fishing as the river system is not a favourable environment for salmonids. However, the river does provide a fishery that has some value for locals for recreational fishing and mahinga kai. The highest diversity of fish species occurs in the lower reaches with fish populations being dominated by bluegill bullies, upland bullies and torrentfish. In the middle and upper reaches, upland bullies dominate. Shortfin and longfin eels are found throughout the river system and could provide a minor recreational fishery. There is also some minor use of the river mouth and lagoon area for whitebaiting when flows are suitable. Whitebaiting at the river mouth is managed by the DOC.

Firearms

Hunters have a long history of using the Waipara River bed for hunting small mammals such as rabbits and possum and game bird hunting at the river mouth. Game bird hunting is managed by the North Canterbury Fish and Game. Today, people are attracted to the Waipara River to enjoy the outdoors, engage with nature and to make use of the recreation and leisure opportunities it provides. The land directly adjoining the river is becoming more populated as the land is subdivided giving rise to lifestyle blocks and vineyards. With the growing number of visitors to the river and increasing development along the river, the potential for conflict between hunters and other users of the river escalates.

The use of firearms in New Zealand is controlled by the Arms Act 1983 and regulations made under that Act. The New Zealand Police administer the Arms Act and issue licences and permits authorised by the Arms Act.

Large sections of the river are subject to AMF rights and as such the riverbed is effectively in private ownership and permission should be obtained from the landowner to access these parts of the river to carry out any recreational activity. It is likely that people using the river for recreational activities such as hunting and camping are unaware of the ownership regime in the river and subsequently the constraints around the use of firearms and camping in the river. A number of incidents have been reported where firearms have been used in close proximity to dwellings and/or other river users with the potential risk for injury or even death.

Dogs

The Waipara River is a popular location for dog owners to exercise their pets. The tracks and open space provide extensive area for dog exercising. Dog control in the Hurunui District is governed by the Hurunui District Council Dog Control Policy and Bylaw 2008. Under this bylaw, the Waipara River is considered a public place. The bylaw requires that the owner or person in possession of a dog in a public place must keep that dog under effective control at all times. Effective control is defined under the bylaw to mean that the dog is either confined on private land, on a leash or under effective voice command where the dog will come



and sit or stop on command. The bylaw also requires that the owner or person in possession of a dog in a public place must, remove any faeces deposited by the dog. Under the Dog Control Bylaw, dogs are prohibited at the Waipara River Mouth.

The community notes that uncontrolled animals can disturb nesting birds and be an issue particularly in areas with high recreational use such as the area around the State Highway 1 Bridge. Adjoining landowners are particularly concerned that unvaccinated dogs have the potential to spread sheep measles to livestock.

Picnicking, Camping and Overnight Stays

Camping is a popular recreational activity in the Waipara River particularly during the summer months. In many instances, people have been going camping in the river for generations. The most popular areas for camping in the river appear to be around the State Highway 1 Bridge area downstream to the Waipara River mouth. Limited camping also occurs upstream from the SH1 Bridge to Ohuriawa Gorge. The Waipara River contains two nohoanga sites which allow Ngāi Tahu to occupy these sites for up to 210 days per year between mid-August and the end of April to facilitate customary activities such as fishing and gathering of other natural resources. One of the nohoanga sites is located at the Waipara River mouth with the second site located near the end of Barnetts Road.

The community is concerned that camping may result in the potential pollution of waterways and other places with human waste and rubbish; the risk of fires; loss of amenity and privacy for residents living in close proximity to camping hotspots; the increased risk of crime and; the potential conflict between campers and other users of the river such as those carrying and using firearms and motorised vehicles.

Barbeques and Fires

There are currently no formal barbeques or fireplaces in the Waipara River bed. The extensive areas of rank vegetation in the river are likely to pose a fire risk during dry conditions. Any wild fire in the river would threaten river control plantings, restoration plantings, fences, structures and public safety. DOC is responsible for the control of fire in all New Zealand river beds where this is on unoccupied Crown land or Crown reserve. The rules governing fire restrictions are outlined in the Forest and Rural Fires Act 1977. It is the DOC's responsibility for publicly notifying changes in the fire season. All areas under DOC fire control have a year round restricted fire season, which means any open air fires require a written permit, with the exception of small fires that provide for cooking and comfort. If fire conditions worsen DOC may declare a prohibited fire season, in which case all permits are cancelled and no fires may be lit. Any person found to have started a fire in a DOC controlled area may be personally liable for the costs of fighting the fire should it get out of control.

Fire is one of the greatest threats to our environment. The devastating effects of fire are obvious. The use of fires for cooking, warmth or atmosphere has environmental consequences. Fires use up wood, destroy insects and other animal life, and they can scar sites with blackened and charred fireplaces. Given the existing provisions in terms of the Forest and Rural Fire Act, it would appear that the main issue with respect to fire is educating the public and enforcement of the provisions.



RECREATION AND AMENITY - ACTION PLAN

<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
To provide for safe and balanced recreation with a minimum conflict between widely different user groups	Permit camping in the area around the SH1 Bridge and the area along the south bank of the river between Webbs Road and the Waipara River mouth. Camping in other areas of the river to be prohibited unless by prior arrangement and approval of landowner	<ul style="list-style-type: none"> - Through the development of a camping bylaw for the river - Providing information on where camping is permitted on the Councils website - Establish signage at public access points - Encourage a carry it in, carry it out message 	High	HDC
	Encourage appropriate dog use	<ul style="list-style-type: none"> - Restrict dogs in the river as required by the current provisions of the Hurunui Dog Control Policy and Bylaw 2008 	Ongoing	HDC
	Permit continued fishing and whitebaiting	<ul style="list-style-type: none"> - Tread lightly – keep an eye out for our unique riverbed birds which carry out their feeding, nesting and sleeping activities at ground level. 	Ongoing	Fish & Game, DOC
	Permit continued game bird hunting at the river mouth provided this activity is managed in a way that ensures there is no unacceptable risk or inconvenience to other users of the river	<ul style="list-style-type: none"> - Permit continued game bird hunting at the river mouth provided this activity is managed in a way that ensures there is no unacceptable risk or inconvenience to other users of the river 	Ongoing	Fish & Game
Minimise impacts of recreation on the natural and environmental values	Maintain a waste free river environment	<ul style="list-style-type: none"> - Prohibit unauthorised dumping of waste in the river and enforce by issuing infringement notices under the Litter Act 1979 or prosecution through the Courts 	High	HDC
		<ul style="list-style-type: none"> - Support volunteer groups currently working to clean waste out of the riverbed 	Ongoing	HDC, CRC, DOC
	<ul style="list-style-type: none"> - Encourage river users to take their waste with them when leaving through signage and interpretation located at key access points to the river 	High	HDC, CRC, DOC	
	Reduce the risk from fire	<ul style="list-style-type: none"> - Signage and interpretation to be located at key access points to the river 	High	HDC, CRC, DOC



OHURIAWA (DOCTORS) GORGE TO WHITE GORGE - MANAGEMENT AREA

Ohuriawa Gorge is a geologically distinctive feature of the Waipara River. The gorge cuts through the southern extremity of the sandstone Doctors Hills with the inner gorge being some 100-120 metres deep, steep-sided and clad in regenerating shrubland of which exotic species dominate (Mosley, 2003). The surrounding hillsides consist of unimproved pasture, reverting shrubland and pine forestry. The river is single threaded, with a gravel bed and periodic rock outcrops. The banks are lined with willows. The Gorge is considered to have high natural character due to the combination of active geological processes that have created the Gorge, the active regeneration of shrubland on the valley sides, and the invisibility from river level of any structures or other obvious signs of human activity. Ohuriawa Gorge is accessible only via the riverbed from the road bridge on MacDonald Downs Road across the South Branch one kilometre upstream, or from the Laidmore Road ford one kilometre downstream. This part of the river is subject to AMF rights and as such there is no public access to the river unless by prior arrangement and approval with the relevant landowners.

Between Ohuriawa Gorge and White Gorge the river flows for about three kilometres through a depression that marks more erodible Cretaceous formations (Mosley, 2003). The White Gorge area is one of unique and internationally renowned geological significance. It contains the only exposed, continuous geological sequence from the Cretaceous to the Miocene and many examples of fossilised material from the Mesozoic and Tertiary Periods. It is one of the few sites where the Cretaceous – Tertiary (K/T) boundary is exposed. The landscape is interesting with a mix of limestone escarpments, alluvial terraces and tightly meandering, gravel-bedded river that periodically cuts into steep rocky bluffs and cliffs. Much of the Gorge and surrounding area forms part of the Weka Pass Outstanding Landscape unit as identified in the Hurunui District Plan. The only access to this part of the river is via the Laidmore Road ford. This part of the river is subject to AMF rights and as such there is no public access to the river unless by prior arrangement and consent of the relevant landowners.

For the next four kilometres, the Waipara River flows through the White Gorge, cutting through the limestone and other sedimentary formations at the southwest end of the Deans Hills. The hillsides and terraces are generally covered with pasture and some regenerating shrubland. Along the inner gorge, the vegetation largely consists of exotic shrubs and trees including gorse, broom, willow and poplar. The river is modified by willow infestation and there are some signs of vehicle tracking in the riverbed. Direct access to the gorge is not possible without crossing private land.

With respect to land ownership in this part of the river, the majority of land on both the south and north banks are subject to AMF rights and as such is effectively in private ownership. The main contention of landowners is that they seek proper respect for their private freehold property and that if members of the public want to access their property then they should ask the landowner for their permission. Landowners in this section of the river have a long history of cooperating with scientists, hobbyists and the general public wishing to study the geology and fossils. The issue is not so much one about access but more around the use of vehicles and the damage they cause to the bed and banks of the river in this geologically sensitive area.

There is also a long, narrow section of Crown land administered by the DOC located along the north bank of the river approximately 0.65 – 2.50 kilometres upstream from the Laidmore Road ford. The predominant land use on the northern side of the river consists of pine forestry plantation. Given the adjacent forestry plantations and Department of Conservation reserves, the community is concerned regarding the potential risk from fire.

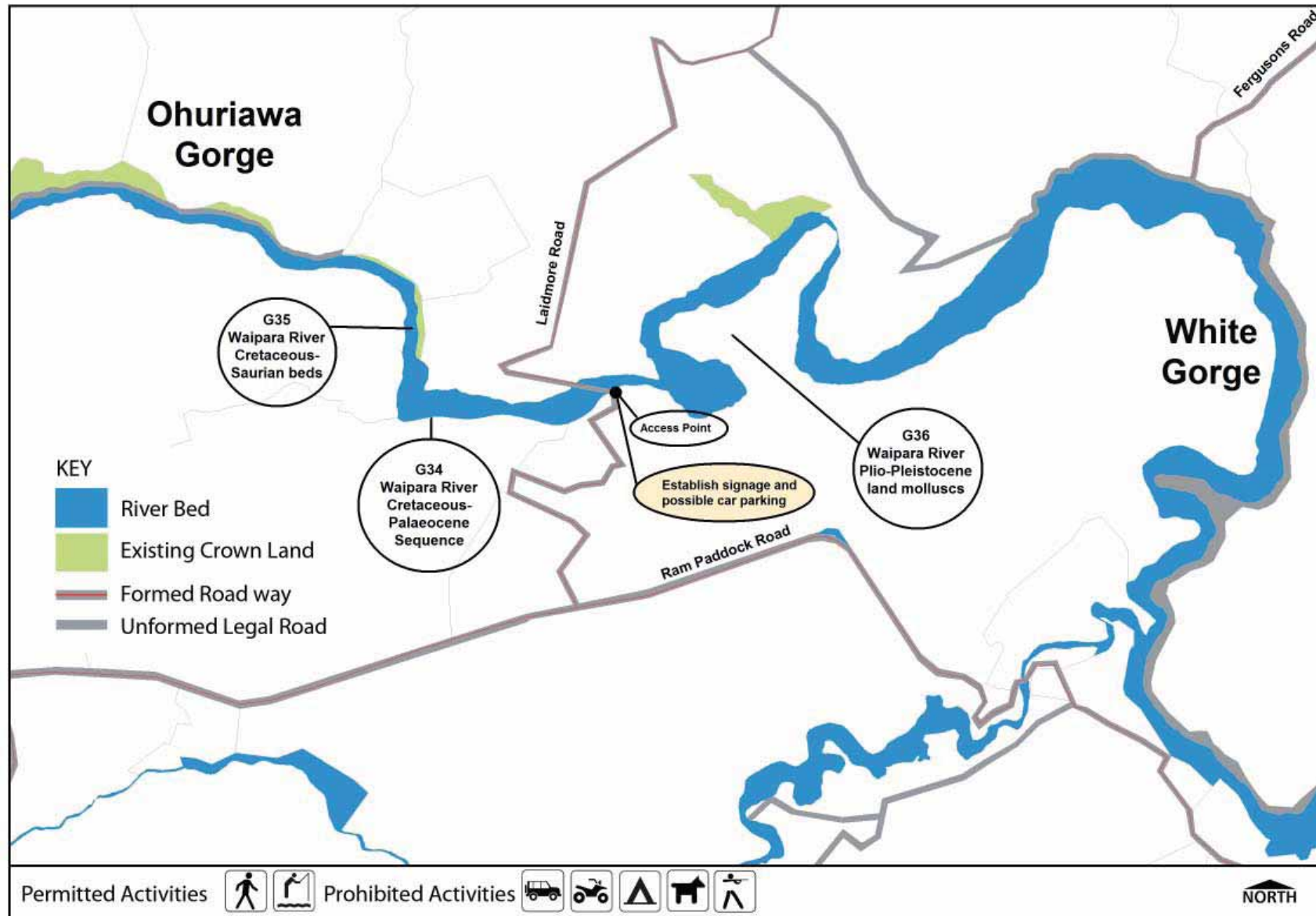


OHURIAWA GORGE TO WHITE GORGE - ACTION PLAN

<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
Protect the historical and geological values within this area of the river	Motor vehicles to be banned in this management area, unless by prior arrangement and permission of the landowners.	<ul style="list-style-type: none"> - Develop motor vehicle bylaw for the Waipara River. - Use signage to restrict motor vehicle access - Investigate the formation of a carparking area in the Laidmore Road ford area 	High	HDC
	Educate and inform the general public about the significance of the area and the rules that apply.	<ul style="list-style-type: none"> - Update website regularly with information - Establish signage 	Medium	HDC, CRC, DOC
	Plan change to be promoted to correct errors with respect to the information provided in relation to the Significant Natural Areas	<ul style="list-style-type: none"> - Initiate plan change process to update and amend information in the District Plan with respect to the identified Significant Natural Areas 	Low	HDC
Ensure that recreational activities protect the amenity values of the river	Prohibit camping (unless by prior arrangement and approval of relevant landowners)	<ul style="list-style-type: none"> - Through the development of a camping bylaw for the Waipara River 	High	HDC
	Prohibit the carrying and use of firearms (unless by prior arrangement and approval of relevant landowners)	<ul style="list-style-type: none"> - Through the development of a firearms bylaw for the Waipara River 	High	HDC



OHURIAWA GORGE TO WHITE GORGE - ACTION MAP

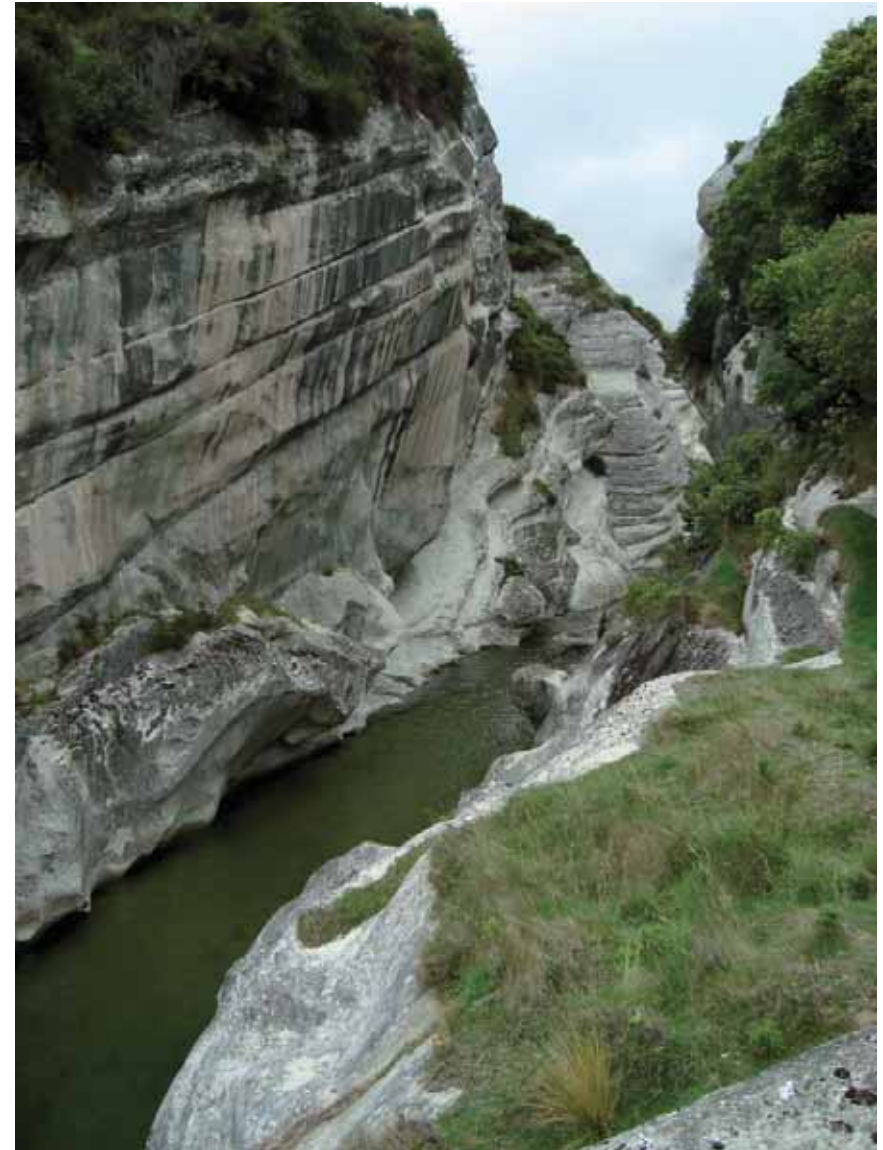


WHITE GORGE TO STRINGERS BRIDGE - MANAGEMENT AREA

From White Gorge to Stringers Bridge, the Waipara River is constrained between steep, high terraces on either side of the river with the river shingles being large and coarser than those found downstream.

There are a number of landowners adjoining this section of the river particularly on the southern side. The predominant land use consists of pastoral farming activities and viticulture development. There are a number of dwellings located on top of the river terrace in close proximity to the river. In terms of land ownership, the land on the south bank of the river is subject to AMF rights and as such is effectively in private ownership to the centre of the riverbed. There is an unformed legal road on the northern bank of the river. The unformed legal road is no different in law from formed roads and as such the public have the right to use them on foot, on horse, or in vehicles. The unformed legal road in effect allows the public to use that part of the river contained within the road. In reality however, it may not always be possible to stay within the designated road area as the terrain and vegetation within the riverbed is difficult to negotiate. This means that at times, users may have to cross onto parts of the riverbed that are subject to AMF rights. The landowners adjoining this section of the river have indicated that they are agreeable to walking access and wish to have vehicular access controlled and limited to approved outings by the Combined 4WD Club on agreed dates.

The river banks and terraces throughout this section of the river are heavily infested with willows and other exotic plant species such as broom, gorse and exotic grasses.



White Gorge

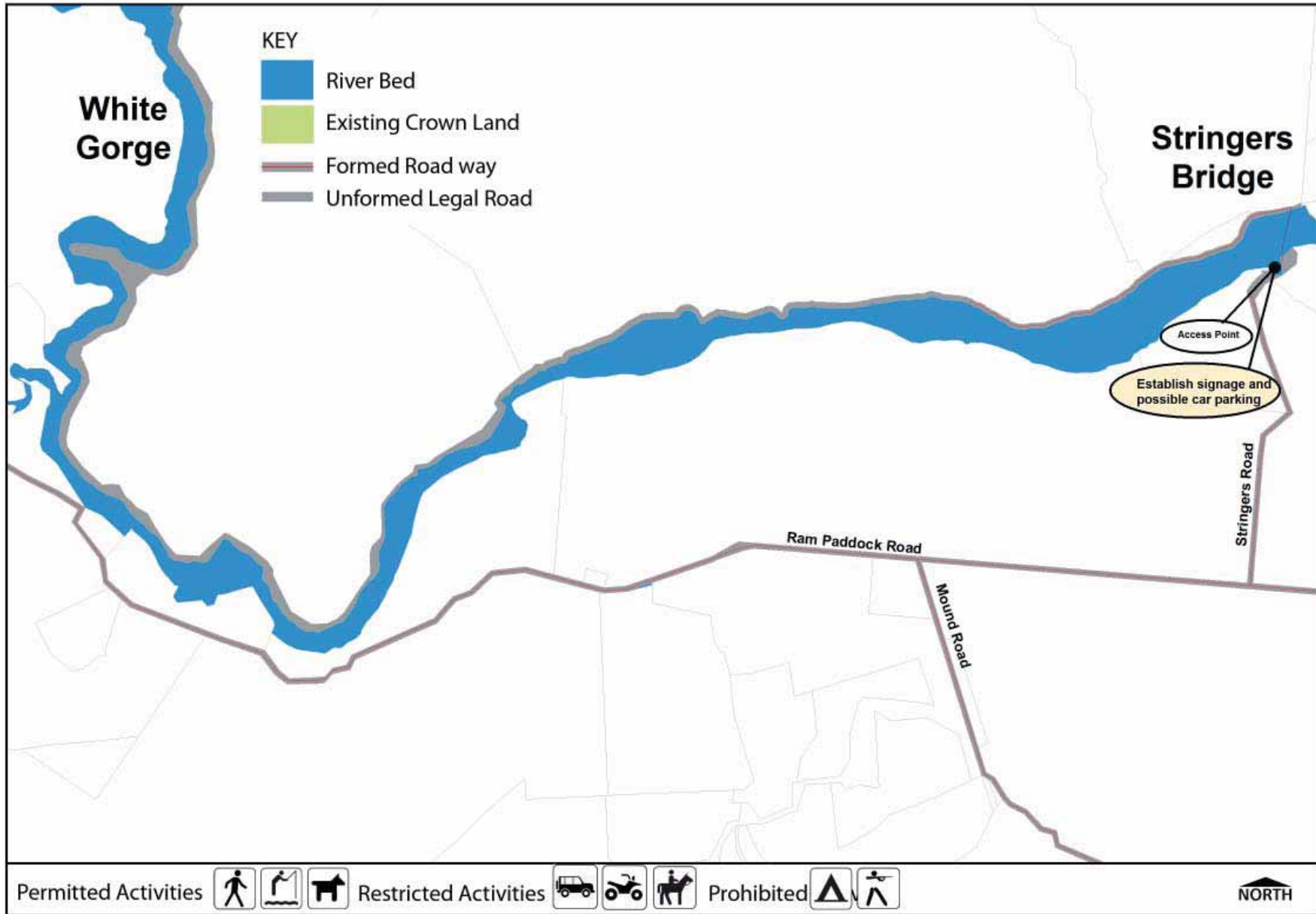


WHITE GORGE TO STRINGERS BRIDGE - ACTION PLAN

<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
Ensure that recreational activities do not reduce amenity values	Document and map the areas under Crown administration and private jurisdiction	- Undertake a mapping exercise of the riverbed	High	HDC, CRC landowners
	Restrict motor vehicle access to those parts of the river that are administered by the Crown	- Identifying those areas that are available for public access through mapping and signage at appropriate locations	High	HDC
	Prohibit camping (unless by prior arrangement and approval of relevant landowners)	- Through the development of a camping bylaw for the Waipara River	High	HDC
	Prohibit the carrying and use of firearms (unless by prior arrangement and approval of relevant landowners)	- Through the development of a firearms bylaw for the Waipara River	High	HDC
Enhance the natural character of the river	Promote native planting of river margin	- Encourage landowners to establish native riparian planting - Provide help for funding applications	Medium	CRC, HDC, DOC, landowners
	Encourage landowners to control plant and animal pests	- In collaboration with landowners develop pest control strategies - Support community initiated control of pests	Medium	HDC, CRC, DOC, landowners



WHITE GORGE TO STRINGERS BRIDGE - ACTION MAP



STRINGERS BRIDGE TO MILLIST ESPLANADE RESERVE - MANAGEMENT AREA

This management area includes that part of the river located between Stringers Bridge and the upstream boundary of the Millist Esplanade Reserve. The gravel riverbed throughout this section is wide with elevated river terraces on the north and south banks. The land on the south bank has in recent times seen an increase in vineyard developments and the creation of lifestyle blocks through subdivision. There is one access point to the Waipara River in this section. This is located at Stringers Bridge.

There is a limited amount of informal camping at Stringers Bridge and approximately half way between the bridge and Barnetts Road. There are some natural swimming holes located a short distance upstream from Barnetts Road which are also popular with locals.

The majority of land on both the south and north banks is likely to be subject to AMF rights and as such is effectively in private ownership. The land on the north bank of the river is comprised within one large pastoral farming property. The land on the south bank of the river consists of smaller parcels of land held under different ownership. Land use on the south of the river consists predominantly of viticultural development and lifestyle properties.

Whilst this area is less trafficked than areas of the river further downstream, there has been a level of inappropriate and unacceptable behaviour associated with vehicle use in this area. The inappropriate use of firearms has resulted in the death of livestock in some instances and shooting within close proximity to dwellings located on the terrace above the riverbed.

Given the ownership regime through this part of the river and the level of inappropriate behaviour associated with vehicle use in this area, it is suggested that vehicle use be restricted to approved outings by the Combined 4WD Club with the appropriate landowner approvals.

The banks throughout this area are heavily infested with willows and other exotic plant species such as broom, gorse and exotic grasses.



Millist Esplanade Reserve

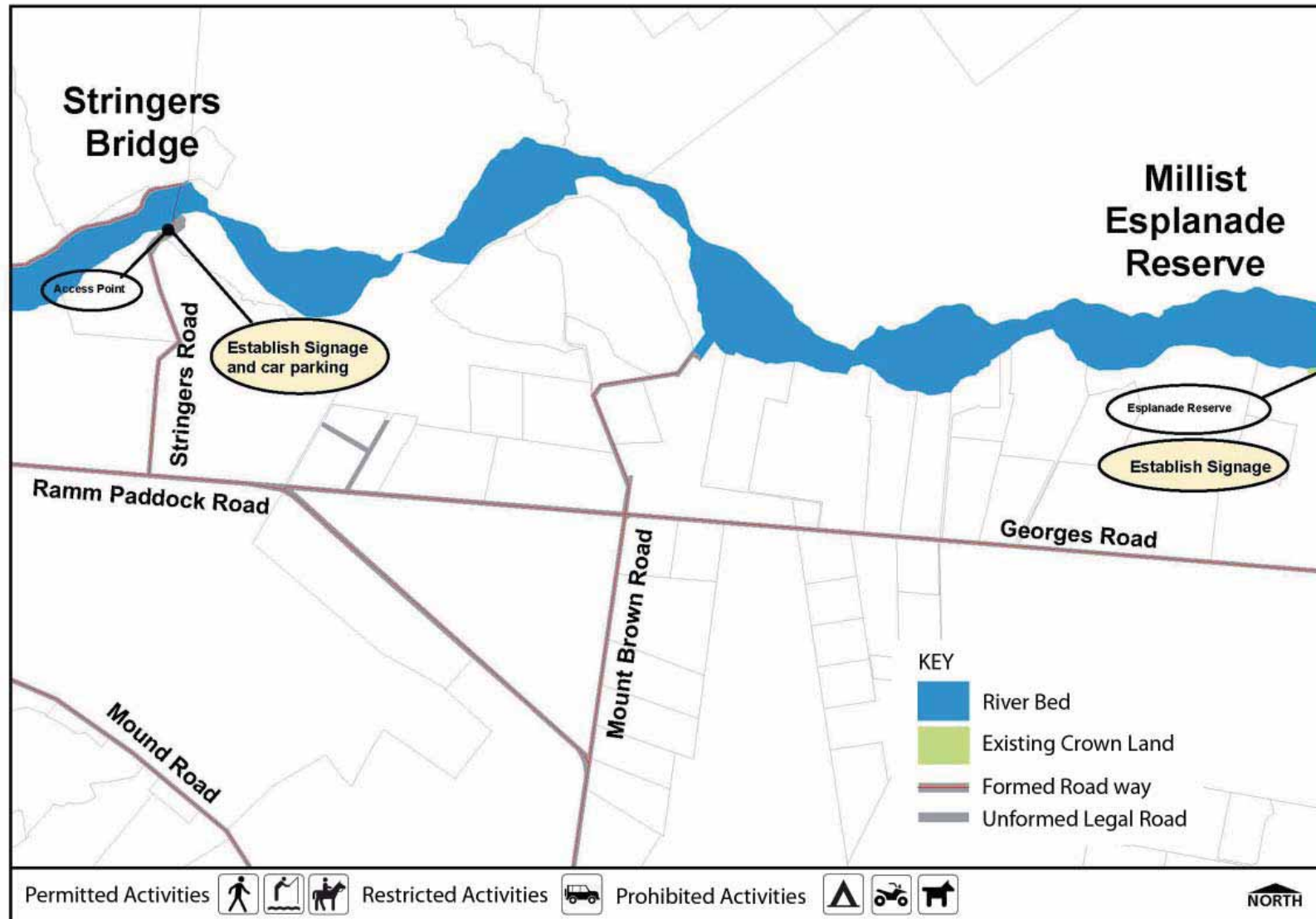


STRINGERS BRIDGE TO MILLIST ESPLANADE RESERVE - ACTION PLAN

<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
Ensure that recreational activities do not reduce amenity values	Restrict motor vehicle access to landowner approved outings by the Combined 4WD Club	- Through the development of a motor vehicle bylaw for the Waipara River	High	HDC
	Prohibit camping (unless by prior arrangement and approval of relevant landowners)	- Through the development of a camping bylaw for the Waipara River	High	HDC
	Prohibit the carrying and use of firearms (unless by prior arrangement and approval of relevant landowners)	- Through the development of a firearms bylaw for the Waipara River	High	HDC



STRINGERS BRIDGE TO MILLIST ESPLANADE RESERVE - ACTION MAP



STATE HIGHWAY 1 BRIDGE (MILLIST ESPLANADE RESERVE TO WASH CREEK) - MANAGEMENT AREA

This management area includes that part of the river located between the upstream boundary of the Millist Esplanade Reserve and Wash Creek.

The State Highway 1 (SH1) Bridge area is a very high use area being located in close proximity and within view of State Highway 1 (SH1) and the township of Waipara. There are numerous access points to the river although these are all located upstream from the SH1 Bridge. Access on the northern side of the river is available at three locations including Barnetts Road, an unformed legal road and an access track near the intersection of Weka Pass Road and SH1 turnoff. The river can be accessed on the southern side of the bridge from the end of Darnley Road and directly from SH1 just south of the bridge.

The Millist Esplanade Reserve is located along the south bank of the river upstream from the Waipara Boys Brigade Camp. The 1.17 hectare reserve is owned and administered by the Hurunui District Council. The reserve is open and accessible from the river bed. The reserve consists of shingle river bed and willow tree plantings. The reserve could be enhanced with the establishment of some amenity trees and riparian planting.

The Waipara Boys Brigade Camp and swimming hole is located on the south bank of the river towards the end of Darnley Road. The Waipara Boys Brigade Camp provides accommodation and a range of outdoor activities for small to large groups. Facilities on the site include a BMX track, confidence course, flying fox and abseiling wall. Groups staying at the camp often visit the Waipara River to go four-wheel driving, boating, rafting and swimming at the man-made swimming hole located in the vicinity of the site in the river bed. There is a second esplanade reserve located directly adjoining the Waipara Boys Brigade Camp. This reserve is owned and administered by DOC.

Given the popularity of this area with the public and the desire to promote walking access throughout the river, it may be worth investigating the feasibility of providing a riverside walkway that connects the Millist esplanade reserve, the DOC esplanade reserve and other areas of Crown owned land in this area.

The land on the downstream side of the bridge is privately owned although there is an esplanade strip along the northern bank of the river from SH 1 to Wash Creek. There is also an esplanade strip along the south bank of the river directly adjoining the Mud House Winery. The Department of Conservation owns a parcel land between Darnley Road and the State Highway and also an esplanade reserve located directly adjoining the Waipara Boys Brigade camp.

The area is a popular camping and picnicking spot although there are no formal camping sites or toilet facilities in the area. There is a nohoanga site located towards the end of Barnetts Road although it is not clear exactly where the site is located. Overlays on aerial mapping give an indication of where the site is located, however these are not considered definitive. It is important to know the exact boundaries of the site to ensure that it is located outside of the proposed vehicle prohibition area. Ngāi Tahu has exclusive camping rights at this site for 210 days per year. The general public may not be aware of this exclusive right and as such may choose to camp or travel through the designated nohoanga site during the period between August and April. As such it would be useful to not only identify the boundaries of the site on the ground, but also provide information for the general public around what is permitted within that area.

The area contains some gravel extraction activities which have been consented by the Canterbury Regional Council. Given the popularity of the area, the community has expressed concern regarding the potential safety given of other river users given that the gravel extraction activities involve the use of large vehicles and heavy machinery.

The community also has concerns regarding the level of rubbish that is disposed of in this area including garden waste, building rubble and car bodies.

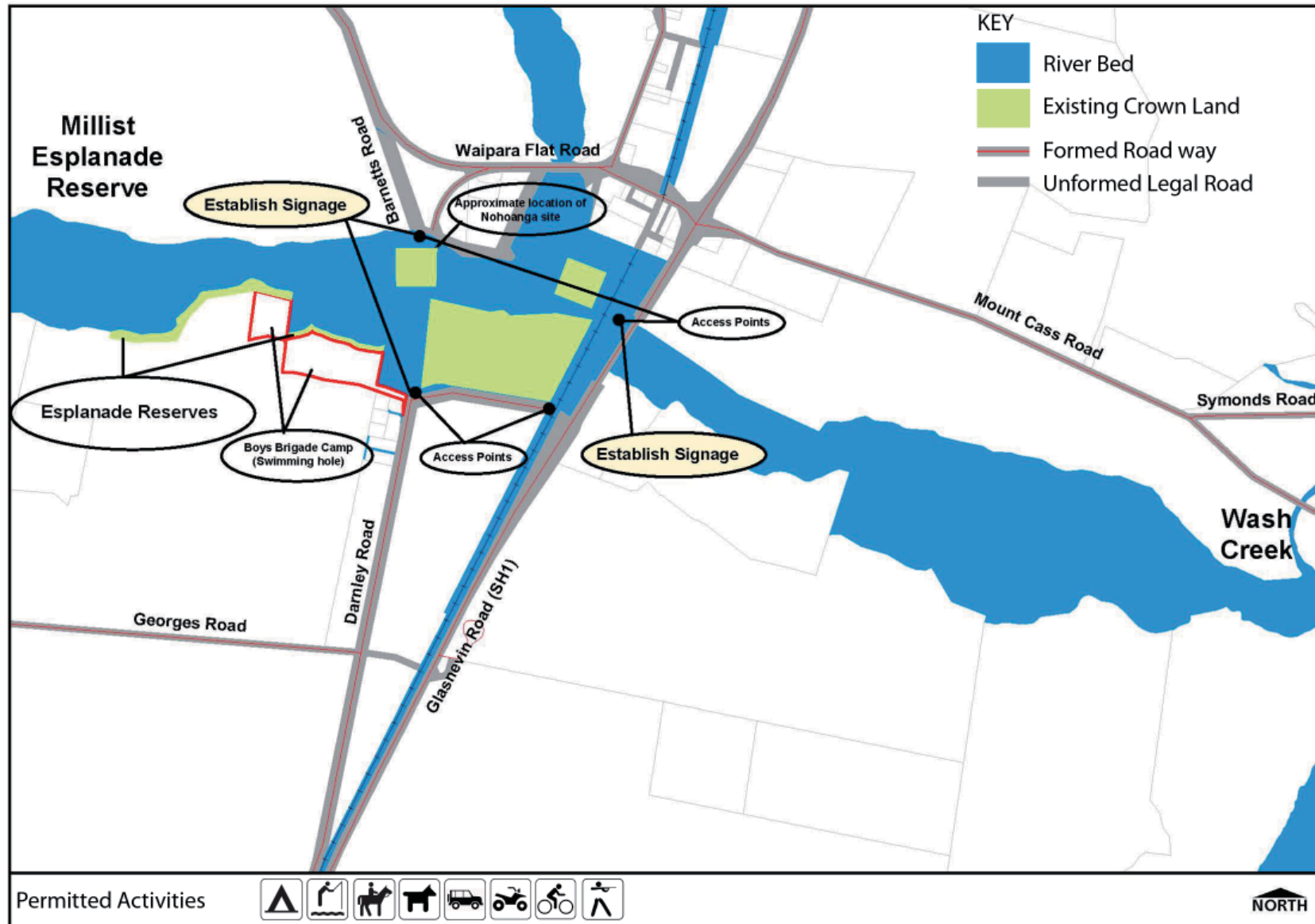


STATE HIGHWAY 1 BRIDGE (MILLIST ESPLANADE RESERVE TO WASH CREEK) - ACTION PLAN

<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
Acknowledge special relationship of tangata whenua with this area	In consultation with Ngāi Tahu, identify the boundaries of the nohoanga site	<ul style="list-style-type: none"> - Survey the nohoanga site - Identify the boundaries on the ground 	Medium	HDC
Improve the safety and efficiency of access points and vehicle use in the river	The location of access points signposted and adequate maps available	<ul style="list-style-type: none"> - Accurate maps with access points, recreational areas and code of conduct to be complied - Information to be made available to visitors and locals, e.g. at petrol stations/i-sites - Signs established at access points explaining the significance of the environment and discouraging rubbish dumping 	Medium	HDC, CRC, DOC
	Reduce the number of access points	<ul style="list-style-type: none"> - Commence discussions with NZTA about closing off the direct access from SH 1 	Medium	HDC
	Allow for appropriate motor vehicle use throughout this area	<ul style="list-style-type: none"> - Through the development of a motor vehicle bylaw and Code of Conduct for the Waipara River 	High	HDC
Enhance the natural character of the river	Encourage land use practices which minimise contamination of the river	<ul style="list-style-type: none"> - Promote the exclusion of stock from the river. Where appropriate advocate fencing and restoration/revegetation work and stock water reticulation 	Medium	CRC, HDC
Ensure that a wide range of recreational activities are provided for	Facilitate the development of recreation and picnic areas with appropriate facilities	<ul style="list-style-type: none"> - Identify areas suitable for development, facilities required i.e rubbish bins, toilets, picnic tables 	Low	HDC, DOC
Enhance the Millist Esplanade Reserve for passive recreational use	Investigate the feasibility of providing a riverside walkway that connects with the adjoining DOC esplanade reserve	<ul style="list-style-type: none"> - Work collaboratively with the Department of Conservation and the Waipara Boys Brigade Camp - Dedicate set funding for walkway project 	Low	HDC, DOC, Landowners



STATE HIGHWAY 1 BRIDGE (MILLIST ESPLANADE RESERVE TO WASH CREEK) - ACTION MAP



WASH CREEK TO WEBBS ROAD - MANAGEMENT AREA

The gravel riverbed here is quite wide although is constrained on either side by large steep cliffs formed where the river has cut through the underlying sediments. The lower gorge at Teviotdale is rich in fossils and is recognised as a Significant Natural Area (G30 in the Hurunui District Plan). The Double Corner shell beds, as these fossil beds are referred to, occur on either side of the lower Waipara River gorge, at the area known as the 'Horse-shoe' (a deep meandering loop) about three kilometres upstream from Greenwood's Bridge. The name Double Corner was adopted for the sheep station which during the later part of the 19th century covered most of the country between the Waipara and Kowai Rivers. The fossil beds consist of fine brown sands and are rich in shell fossils, mostly molluscs. These fossils date back to the Miocene period of geological history and are about twelve million years old. The shell beds consist of several different levels, each of which contains a variety of shells. When these beds are examined closely it can be seen that the sequence of the levels is repeated. This is because a 'fault' or break in the rocks runs across the river in this area. Movement along the fault has caused the rock containing the various shell beds to slide up and over each other so that the areas which were originally lying side by side have moved so that they now lie one on top of the other. One of the more interesting fossil beds consists of thousands of tiny bivalve shells of the species *Turia*. Many of the *Turia* shells have tiny holes which were made by carnivorous, snail-like molluscs which bored through the shell of the living *Turia* eating the animal inside.

There are two public access points to the Waipara River in this area. These are located at the end of Webb's Road and the northern side of Greenwood's (Teviotdale) Bridge on Double Corner Road. The river can be accessed both upstream and downstream of Greenwood's Bridge. There is a large area directly upstream of the bridge where vehicles can turn around and park. The area around Greenwood's Bridge is a popular camping and picnicking spot with a number of good swimming holes in the vicinity.

Anecdotally, this section of the river appears to be one of the most frequently trafficked areas with the area criss-crossed with a number of vehicle tracks. The Horse-shoe area is very popular with motorbikes and ATVs. One of the main concerns raised by the community is the noise generated from these activities and also the anti-social behaviour associated with vehicle use in this area, such as the dumping of rubbish and car bodies and vandalism of adjoining fences and property through inappropriate vehicle use.

With respect to landownership in this section of the river, the majority of land on both the south and north banks are subject to AMF rights and as such is effectively in private ownership. In the past, adjoining landowners have attempted to keep the public out of this area but this has proved to be a futile exercise with gates and fences being constantly removed and damaged. Given these frustrations, some of the adjoining landowners are prepared to allow the public to use this area for recreational activities provided that their private property is respected. However, this situation could change if the public continues to abuse this privilege through inappropriate and antisocial behaviour.

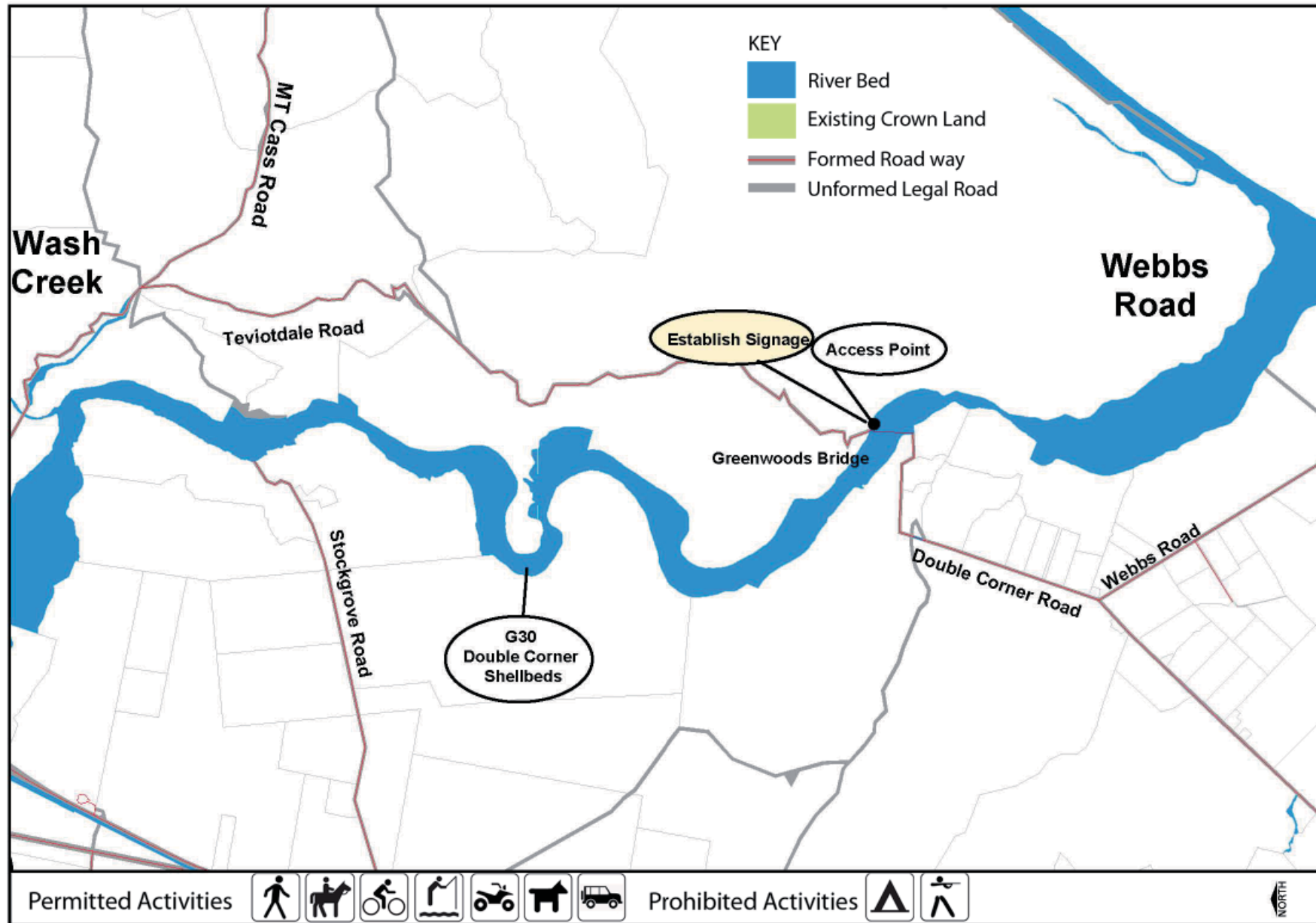


WASH CREEK TO WEBBS ROAD - ACTION PLAN

<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
Improve the safety and efficiency of access points and vehicle use in the river	The location of access points signposted and adequate maps available	<ul style="list-style-type: none"> - Accurate maps with access points, recreational areas and code of conduct to be complied with - Information to be made available to visitors and locals, e.g. at petrol stations/i-sites - Signs established at access points explaining the significance of the environment and discouraging rubbish dumping 	Medium	HDC, CRC, DOC
	Allow for appropriate motor vehicle use throughout this area	<ul style="list-style-type: none"> - Through the development of a motor vehicle bylaw and Code of Conduct for the Waipara River 	High	HDC
Enhance the natural character of the river	Promote native planting of the river margin and bridge approaches to enhance landscape amenity values	<ul style="list-style-type: none"> - Use local groups to assist in carrying out planting projects - Provide help for funding applications 	Medium	CRC, HDC, DOC, landowners
Ensure that recreational activities do not reduce the level of amenity for adjoining landowners	Prohibit camping (unless by prior arrangement and approval of relevant landowners)	<ul style="list-style-type: none"> - Through the development of a camping bylaw for the Waipara River 	High	HDC
	Prohibit the carrying and use of firearms (unless by prior arrangement and approval of relevant landowners)	<ul style="list-style-type: none"> - Through the development of a firearms bylaw for the Waipara River 	High	HDC



WASH CREEK TO WEBBS ROAD - ACTION MAP



WAIPARA RIVER MOUTH - MANAGEMENT AREA

The Waipara River Mouth Management Area covers that portion of the Waipara River located between the coast and Webbs Road as shown on Map A. The river flows across a narrow coastal plain to the Waipara Lagoon at the coast. The lagoon consists of still water with unstable gravels and bars between it and the sea. The lagoon is narrow and extends largely to the north of the river, immediately behind the beach. The lagoon is generally opened to the sea by freshes of 8-10m³/s in the Waipara River and closes again when flow falls below 4m³/s. The Hurunui District Plan identifies the river mouth and lagoon to the north as a Significant Natural Area (SNA6) and is described as an unstable mouth of small braided river with flow fluctuations causing frequent changes. The nature of the river mouth reflects the balance between coastal and fluvial processes, principally during extreme conditions. The form of the mouth is influenced predominantly by extreme events. There is minor use of the river mouth and lagoon for whitebaiting when flows are suitable and the area is also popular for game-bird hunting during the season.

The Waipara River mouth is an important and regionally unique estuarine system having moderate to high values for wildlife. The river mouth is ranked as having national to international significance for threatened bird species. Threatened species found in this area are the wrybill, bittern, black fronted tern and banded dotterel. A total of 25 wetland bird species have been recorded, including migratory waders which are otherwise uncommon in New Zealand or Canterbury. Wader numbers are variable and when river flow is low suitable habitat is limited. This area is also an important nesting and feeding ground for a number of bird species. The community is concerned that these important bird nesting sites are vulnerable to vehicle damage and pest animals and want to see them protected.

The lagoon is of particular significance to Te Rūnanga O Ngāi Tūāhuriri, as a source of mahinga kai and access to the lagoon for this purpose is important. There is a nohoanga site located towards the end of Golf Links Road although it is not clear exactly where the site is located. Overlays on aerial mapping give an indication of where the site is located, however these are not considered definitive. It is important to know the exact boundaries of the site to ensure that it is located outside of the proposed vehicle prohibition area. Ngāi Tahu has exclusive camping rights at this site for 210 days per year. The general public may not be aware of this exclusive right and as such may choose to camp or travel through the designated nohoanga site during the period between August and April. As such it would be useful to not only identify the boundaries of the site on the ground, but also provide information for the general public around what is permitted within that area.

The Waipara River mouth area contains many archaeological sites described in the Hurunui District Plan. The River mouth was the site of a prolonged and sustained occupation with two pa sites located on the northern side of the river. The importance of the Waipara River and lagoon are reflected in the Statutory Acknowledgement under the Ngai Tahu Treaty Claims Settlement Act 1998. One of the main priorities for Te Ngai Tuahuriri is better access to and management of the lagoon for mahinga kai.

The surrounding landscape is predominantly unmanaged shrubland, in which exotic trees such as willows, shrubs and grasses are predominant. The community is keen to enhance the natural environment in this area through some of restoration project.

There are two public access points to the Waipara River in this area. These are at the end of Webbs Road and Golf Links Road. There is a defined 4WD vehicle track from the north bank to the topographical feature locally referred to as the Rocks – a rocky headland located at the northern most part of Pegasus Bay approximately 2.5 kilometres north of the river mouth. The Rocks is a popular picnic, camping and fishing spot with small boats launched directly from the beach.



Hurunui District Plan

The Hurunui District Plan identifies this management area as being located within the Coastal Environment Management Area. The relevant rules for this area are set out in Section B2 of the District Plan as follows:

B2.1 Permitted activities

Any activity listed as a permitted activity that complies with the conditions in Rule B2.2 is permitted, provided it complies with the district wide rules:

- (h) Recreational activities, but not including commercial or recreational activities that involve motorised vehicles within the following areas:
- the dune system
 - areas of typical coastal vegetation
 - coastal wetlands
 - estuarine areas at the mouth of the Kowai, Waipara, Motunau, Blythe, Hurunui, Jed, Waiau and Conway Rivers.

Currently, motorised vehicles are used for recreational activities within the Waipara Lagoon area and also on the track to The Rocks which is partly located within a coastal wetland and dune system. These activities are not permitted in terms of the District Plan. This means that for any activity to be undertaken within these areas involving a motorised vehicle a resource consent is required from the Council.

The District Plan also identifies the river mouth and lagoon to the north as a Significant Natural Area (SNA6) as shown in Appendix 1. The SNA is described as an unstable mouth of small braided river with flow fluctuations causing frequent changes.

Northern Pegasus Bay Coastal Management Plan

The Northern Pegasus Bay Coastal Management Plan (the Coastal Plan) is a non-statutory document prepared by community representatives following a participatory process which provides a vision for the future and a detailed set of actions aimed to achieve this future. The Coastal Plan includes area management plans specific to the Waipara River Mouth as follows:

1. Recommended that motor vehicles are banned in the Waipara River estuary, subject to a designated motor vehicle track for whitebaiting access during the season.
2. Recommended that dogs are not permitted in the wetlands or in the designated area in the Waipara River estuary and bar, with the exception of holders of Fish and Game hunting licences who should be permitted to use gamebird dogs during the gamebird hunting season in May, June and July.



3. Recommended that a northern car park at the end of Golf Links Road is investigated in consultation with the DOC.
4. Recommended that the track to The Rocks is repaired where there is rut damage in the estuary, and an advisory sign be erected using the Combined 4WD Club's wording.
5. Recommended that a bird hide for observing birdlife in the Waipara Estuary is established at a suitable site.

The recommendations relating to the vehicle prohibition area have now been adopted in the Northern Pegasus Bay Bylaw 2010.



WAIPARA RIVER MOUTH - ACTION PLAN

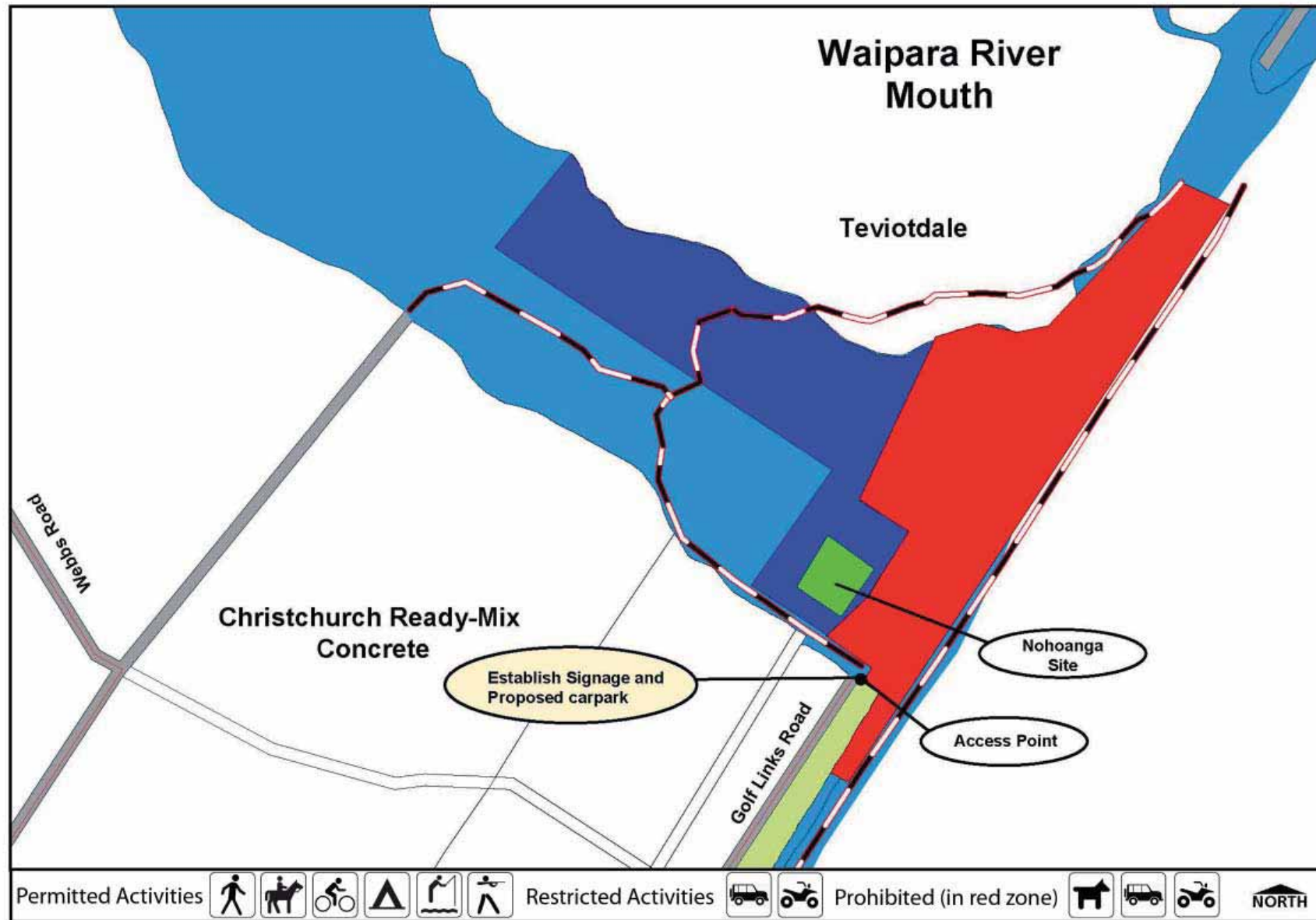
<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
Acknowledge special relationship of tangata whenua with this area	In consultation with Ngāi Tahu, identify the boundaries of the nohoanga site	- Survey the nohoanga site - Identify the boundaries on the ground	Medium	HDC
	Educate the general public on the cultural values of the area and the restrictions based around the use of the nohoanga site	- Provide information through signage to be established in the area and through the Council's website.	Medium	HDC, CRC, DOC
Allow for appropriate vehicle use to provide access to the Rocks	Plan change to be promoted so that the use of motorised vehicles is a permitted activity on the designated track to the rocks subject to landowner permission.	- Initiate Plan Change process to allow for the use of motorised vehicles as a permitted activity on the designated track to the rocks subject to landowner permission	High	HDC
	Acknowledge the Northern Pegasus Bay Coastal Management Strategy	- Adopt the recommendation that motor vehicles are banned in the Waipara River estuary in the area indicated in red, subject to a designated motor vehicle track for whitebaiting access during the season	High	HDC, CRC, DOC
	Prohibit the use of motor vehicles in the area indicated in blue on the attached plan, subject to a designated motor	- Through the development of a motor vehicle access bylaw for the Waipara River	High	HDC



<i>What We Want to Achieve – Goals</i>	<i>What We Will Do - Actions</i>	<i>How We Will Do It</i>	<i>Priority</i>	<i>Who Will Lead It</i>
	vehicle track to the nohoanga site and a track on the north site of the river to be phased out within 3 years from the adoption of the Plan. Tracks are to be sited to minimise impact on wildlife.	- Get into dialog with the owners of Teviotdale with regard to the access track to the rocks	High	HDC
Promotion of natural values	That the public be educated on the wildlife values of the estuary	- Information to be provided on the Council's website and through signage - Signage to be established at access points and carparking areas	Low	HDC, CRC, DOC
	Restoration project to include the whole river mouth management area	- That the statutory authorities work collaboratively on a restoration project at the Waipara River mouth	Medium	HDC, DOC, CRC
		- Use local groups to assist in carrying out the restoration work	Medium	HDC, CRC, DOC
		- Dedicate set funding for the restoration project	High	HDC, CRC, DOC



WAIPARA RIVER MOUTH - ACTION MAP



MEMBERS OF THE WAIPARA RIVER WORKING PARTY

Name	Organisation
David Beer	Education Sector
Greg Bennett	Amberley Beach Coast Care
Julie Coster	Councillor, Hurunui Distric Council (Amberley)
Tony Fitzsimmons	Land Owner
Rob Gerard	Environment Canterbury
Norton Hiller	Canterbury Museum
Sarah Hughes-Games	Waipara Promotions Association
Garry Jackson (Chair)	Mayor, Hurunui District Council
Brian Jensen	Department of Conservation
Mark Jones	Community Representative
Te Marino Lenihan	Te Ngāi Tūāhuriri Rūnanga
Ross Little	Councillor, Environment Canterbury (North Canterbury)
Leigh Love	Amateur Palentologist
Brent Maguire	Combined Fourwheel Drive Club
Dale Mainwaring	Community Representative
Ian McCrory	Fish and Game
Fred Murray	Forest and Bird
Gareth Renowden	Landowner
Douschka Saunders	Community Rep
Ross Williams	Waipara Boys Brigade



The Waipara River Working Party would like to thank the following people for their support in preparing this management document. These people attended meetings, gave presentation or worked through the process with the working party.

Name	Organisation
Richard Goord	Landowner, Claremont Estate
Jon Harding	University of Canterbury (Biological Sciences)
Andrew Parrish	Environment Canterbury
Steve Palmer	Environment Canterbury (Pest Management)
Matthew Macallum-Clark	Environment Canterbury (Water Flows)
Chris Rhodes	Farm Manager, Teviotdale
Terry Charles	Environment Canterbury (Pest Management)
Jeff Scholes	Environment Canterbury (River Engineer)
Major Ash Brunton	New Zealand Army
Major Chris Murphy	New Zealand Army
Helga Rigg	Hurunui District Council
Amelia Dalley	Hurunui District Council
Mathieu Sansoucy	Photography
Peter Cooper	New Zealand Police



ACTION PLAN SUMMARY

	<i>Source to Doctors Gorge</i>	<i>Doctors Gorge to White Gorge</i>	<i>White Gorge to Stringers Bridge</i>	<i>Stringers Bridge to Millist Esplanade Reserve</i>	<i>SH 1 Area (Millist Esplanade Reserve to Wash Creek)</i>	<i>Wash Creek to Webbs Road</i>	<i>Waipara River Mouth</i>
Vehicle Access	Vehicles restricted unless by prior arrangement and approval of relevant landowners	Vehicles restricted unless by prior arrangement and approval of relevant landowners	Vehicles restricted unless by prior arrangement and approval of relevant landowners	Vehicles restricted unless by prior arrangement and approval of relevant landowners	All vehicles permitted subject to compliance with Code of Conduct	All vehicles permitted subject to compliance with Code of Conduct	Vehicles prohibited except on designated vehicle access tracks
Pedestrian Access	Pedestrian access to be provided for throughout river bed						
Camping	No camping (unless by prior arrangement and approval of relevant landowner)	No camping (unless by prior arrangement and approval of relevant landowner)	No camping (unless by prior arrangement and approval of relevant landowner)	No camping (unless by prior arrangement and approval of relevant landowner)	Camping permitted	No camping (unless by prior arrangement and approval of relevant landowner)	Camping permitted
Ecology	Recommend initiating a regime of regular ecological surveys of the Waipara River						
Plant & animal pests	That HDC, CRC and DOC work collaboratively with private landowners and gain co-operation of LINZ to develop pest control strategies and support community initiated control of pests. That HDC & CRC work together to scope costs to remove willows from the fairway with an outline of a river rating/pest district. That the holders of extraction consents be encouraged to remove all willows within the bed of the river within the proposed extraction area.						
Shooting	No Shooting (unless by prior arrangement & approval of landowner)	No Shooting (unless by prior arrangement and approval of landowner)	No Shooting (unless by prior arrangement and approval of relevant landowner)	No Shooting (unless by prior arrangement and approval of relevant landowner)	Shooting permitted in accordance with relevant legislation & restricted to shotguns only during daylight hours	No Shooting (unless by prior arrangement and approval of relevant landowner)	Shooting permitted at river mouth in accordance with relevant legislation
Fishing	Fishing permitted throughout river subject to access						
Dogs	Dogs permitted subject to Hurunui District Council Dog Control Bylaw						Dogs prohibited at Waipara River mouth
Cultural Values					Nohoanga site		Nohoanga site
Fires	That the Working Party support current fire regulations with the provision appropriate signage be made available at all public access points to the river						
Rubbish	HDC, CRC & DOC to support volunteer groups currently working to clean rubbish out of the river bed. HDC to support a take it in, take it out policy on rubbish.						
Biodiversity	Promote native planting of river margins				Plant river margins of esplanade reserve with native plant species	Promote native planting of river margins and bridge approaches	Undertake a restoration project collaboratively with local groups
Gravel Extraction	N/A	N/A	N/A	Recommend to CRC that a monitoring programme to record river bed levels for use in assessing bed status and changes and minimum bed level to protect infrastructure be commenced			

Local Authorities: Hurunui District Council (HDC), Canterbury Regional Council (CRC), Department of Conservation (DOC)



REFERENCES

Chater, M., 2002: Waipara River water resource report. Canterbury Regional Council report U02/84.

Hayward, S.A.; Meredith, A.S.; Lavender, R.M.; 2003: Waipara River: assessment of water quality and aquatic ecosystem monitoring, 1999 to 2002. Canterbury Regional Council report U03/11.

Lloyd, I., 2002: The water resources of the Waipara Catchment and their management. University of Canterbury Masters Thesis.

Mosley, P.M., 2003: Waipara River: instream values and flow regime. Canterbury Regional Council report R03/1.

O'Donnell, C.F.J., 2000: The significance of river and open water habitats for indigenous birds in Canterbury, New Zealand. Canterbury Regional Council Technical report U00/37.

Richardson, J.; Jowett, I.G.; Bonnett, M.L., 2003: The role of flow regime in maintaining fish communities in the Waipara River, New Zealand.

Richardson, J., and Jowett, I.G., 1994: Fisheries values of the Waipara catchment. Miscellaneous report 173, NIWA, Christchurch.

