

# Ashburton / Hakatere River Mouth

## Management strategy



Prepared for Environment Canterbury  
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## 1. Introduction

The Ashburton / Hakatere River mouth and the coastal lagoon / hapua provide important habitat for indigenous birds, fish, invertebrates and plants. The braided river and shore bird habitat is significant and scientifically recognised. The mouth has the highest avian species richness of any site within the Ashburton District. For a number of bird species, this is the most important locality and includes: Spotted Shag, Otago Shag, Pied Cormorant, Red-billed Gull, Caspian Tern and Variable Oystercatcher. The area has been identified by BirdLife International as an important area as it supports breeding colonies of the endangered black-billed gulls. Improved management is essential to protect and enhance these natural values in perpetuity.

The area is also widely used for recreational activities. Fishing at the mouth has a longstanding history as has white baiting and surf casting.

Cultural values have changed over time as some of the natural values have diminished.

Ongoing concerns over the compatibility between ecological, cultural, historical and recreational values led to the decision to develop a management strategy for the area.

## 2. Landscape context

The Ashburton / Hakatere River is one of Canterbury's braided rivers, flowing across Mid Canterbury from the Southern Alps to the Pacific Ocean. The river lies in a shallow depression between the higher shingle fans created by the much larger Rakaia and Rangitata rivers.

Previously greater volumes of water have flowed through the Ashburton River/Hakatere. This increased discharge took place during the Pleistocene glacial and inter-glacial periods when its drainage basin received ice from the Rangitata and Rakaia valleys (Fitzharris et al., 1982). This enabled the Ashburton /Hakatere River to carry more waste and construct a large fan of its own. Therefore, the Ashburton /Hakatere River had a substantial influence on the building and final shape of the Canterbury Plains (Speight, 1950). While the Ashburton /Hakatere River fan may not be as large as the neighbouring Rangitata and Rakaia fans it is still significant within the Canterbury Plains environment.

Nowadays, the river separates the Ashburton township from its southern suburb Tinwald.



### 3. Background

Following concerns raised by community members, Environment Canterbury staff convened meetings and the Ashburton / Hakatere River Mouth Action Committee (ARHMAC) was formed in 2008. Its purpose was: “To protect and enhance the recreational and environmental values of the Hakatere/Ashburton River mouth and estuary”. This group was actively coordinated by Environment Canterbury until early 2011.

Since then intermittent discussions have been held between land managers and landowners (ECan, ADC, DOC and LINZ), local residents, interest groups (Fish & Game, Forest & Bird, Mid-Canterbury Four-wheel drive Club, Jet Boat NZ, Ornithological Society) and the wider community about how to manage the ecological, cultural and recreational values of the Ashburton / Hakatere River mouth.

Ongoing concerns over the compatibility between ecological, cultural, historical and recreational values led to the decision to develop a management strategy for the area. This work has been commissioned by Environment Canterbury.

#### Area for discussion



*The area for discussion spans from south of Lower Beach Road to the boundary of the Hakatere settlement to the north, as outlined in the aerial above (white outline).*

**The management strategy addresses the following aspects:**

- Braided river and shore bird habitat;
- Protection and enhancement of remnant native vegetation;
- Protection and enhancement of aquatic values in large spring on southern side;
- Sensitivity to cultural values and uses, including future opportunities;
- Recreational activities including motorised and non-motorised access for recreational purposes;
- Opportunities for education;
- Flood management;
- Identification of any other topics which need to be addressed for successful implementation.

**Topics not covered by the strategy:**

- Water quality and flows
- Coastal erosion
- River mouth opening
- Effects of climate change.

While it is acknowledged that these topics have an impact on the quality of ecological, recreational and cultural values at the river mouth, they are being addressed via regional planning processes/zone committee or other means and are more appropriately addressed at that scale. This strategy therefore does not seek to find new solutions to these topics, but recognises and supports the ongoing work to address them as essential to protecting and enhancing values at the river mouth.



*The Ashburton/Hakatere River mouth provides important habitat for a number of bird species.*



## 4. Land tenure



### Key

A	Esplanade Reserve	Department of Conservation
B	Recreation Reserve	Ashburton District Council <b>Area:</b> 4.49 ha
C	Kōngutu Reserve	Department of Conservation <b>Area:</b> 1.39 ha
D	Common Marine and Coastal area	Environment Canterbury management area
E	A.M.F. Rights, Crown land	Land Information New Zealand
F	Recreation Reserve	ADC, Hakatere settlement



**Kōngutu Reserve - naming**

The New Zealand Geographic Board Ngā Pou Taunaha o Aotearoa explained the background to the naming of the DOC administered Kōngutu Reserve:

A memo dated 24 March 1903 from the Commissioner of Crown Lands – Christchurch to the Surveyor General – Wellington reads as follows:

*“I have now to report that the name recommended by the Ashburton County Council for the above proposed domain, is “Konguta, the Maori for entrance to River”. I think that the Council is a little wrong in the spelling of the name, which should, I think, be “Kongutu-awa”, but this form, shortened to “Kongutu”, not ta, would be suitable, and not difficult to pronounce”.*

This was subsequently approved and Orders in Council prepared and sent to printer on 2 April 1903. Please note that Domains are now known as Recreation Reserves.



*Ashburton / Hakatere River mouth, looking south towards Ashton Beach*

## 5. Development of the Management Strategy

An online survey was conducted via the Environment Canterbury website during December 2018 & January 2019 with the purpose of getting feedback on how and when people used the area, and what users see as the present values and threats. Local community, recreational users and key stakeholders were invited to complete the survey. Additionally, people visiting the site were surveyed during the summer months by Environment Canterbury staff. Responses to the survey were provided by 164 people.

Discussion and meetings were held with:

- Land owners - Ashburton District Council (ADC), Department of Conservation (DOC), Land Information New Zealand (LINZ) - and Environment Canterbury (ECan) as the land managers, to engage them in the project and allow input into development of the strategy.
- Te Rūnanga o Arowhenua to understand their values for the area in order to incorporate these into any recommendations.
- Community members and key stakeholders (including Fish & Game, Forest & Bird, Hakatere Hut Holders, Mid Canterbury 4WD Club, recreational users, Jet Boaters) were also invited to two community meetings. These meetings discussed current values and use of the area; gathered ideas of any changes which may improve the natural and recreational values; sort feedback on a draft management concept and how this would affect recreational users of the area.

Following the initial meetings with land owners, stakeholders, users and the community, a draft discussion paper including Concept A (below) for the mouth were prepared. The proposal was presented to the land owners, stakeholders, users and the community at separate meetings. Discussions were held and comments noted. A second concept (Concept B below) was developed as a result of the feedback from the community meeting for inclusion in the management strategy.



## 6. Ecological, cultural, historical and recreational values

### 6.1 Braided River Dynamics

The natural processes of braided rivers play a significant role in providing for important ecological values. These values are often underestimated, and not always well understood. The connection between the river and the low lying, potentially wet areas along the coastal environment are also important.

Braided rivers are dynamic and as a result change course considerably over time. The images below demonstrate the migration of the Ashburton / Hakatere River from the early 1940's to the present day. Nearly 80 years ago, the mouth was occupying a large area of Ashton Beach, whereas at present the river is running closer to the true left. (Images below sourced from Canterbury Maps). The creation of stop banks in association with river engineering has changed the natural braiding of rivers. Nowadays, there is a tendency to allow the rivers to braid and move as naturally as possible.

From time to time, there is a need to artificially open the river mouth, generally this happens in late winter/early spring when the river is in high flow, the sea rough, and the swell high. This is to avoid erosion of the cliff edge north of the hut settlement, where some years ago about one hectare of land was swept away overnight. Opening the mouth, whether artificially or naturally, allows fish migration and/or improves water quality.



early 1940's

late 1960's



late 1990's

2016

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## 6.2 Ecological values – birdlife

Environmental Consultant Andrew Crossland has been monitoring birds at the Ashburton / Hakatere River mouth since the early 1990's. His reports, commissioned by ECan since 2017, clearly outline the importance of the area for avifauna. Resulting from the reports, Andrew Crossland has recommended how bird habitat at the mouth could potentially be improved.

His recent report states as follows: The coastal lagoon / hāpua is an important wetland along the mid Canterbury coastline, utilised by a wide range of braided river birds, wetland birds and coastal seabirds. Its relative isolation from other sizeable wetland habitats means that it attracts a range of migratory and transient wader and waterfowl species, as well as serves as the major roosting and/or breeding station for populations of gulls, terns and shags ranging along an approximate 50 km stretch of adjacent coastline and near-shore waters. Within the context of biodiversity and nature conservation in the Ashburton District, the river mouth has the highest avian species richness of any site within the district (ahead of the Rangitata and Hekeao / Hinds river mouths). It is the most important locality for a number of bird species, including Spotted Shag, Otago Shag, Pied Cormorant, Red-billed Gull, Caspian Tern and Variable Oystercatcher.

The total list of avifauna species recorded at the river mouth is 78 species. This total includes two new bird species recorded in 2018-2019 (New Zealand Scaup and Giant Petrel sp) previously not observed at this site. In 2018-2019, 34 river/wetland/coastal bird species were recorded, compared to 30 species recorded the previous year.



*Shag colony at the Ashburton /Hakatere mouth.*

*Photo: Andrew Crossland*

The following page contains a list of species and numbers surveyed by Andrew Crossland during monthly counts from April 2018 to March 2019.

## Ashburton / Hakatere River Mouth – Management Strategy

### Cormorants and Shags

species	23/04/2018	17/05/2018	22/06/2018	21/07/2018	24/08/2018	14/09/2018	26/10/2018	22/11/2018	17/12/2018	29/12/2018	3/01/2019	12/01/2019	29/01/2019	19/02/2019	26/03/2019
Black Cormorant	0	0	1	0	0	0	0	0	1	1	2	1	1	0	1
Pied Cormorant	6	6	5	1	0	2	1	3	8	5	2	2	8	5	7
Little Cormorant	0	1	0	0	0	0	1	0	0	0	0	4	1	3	0
Little Bl Cormorant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spotted Shag	7370	8130	7620	4024	832	1940	24	2080	781	760	152*	790	1452	2010	7660
Otago Shag	3	5	9	3	0	3	0	1	0	0	0	0	0	0	1

### Herons and Spoonbills

species	23/04/2018	17/05/2018	22/06/2018	21/07/2018	24/08/2018	14/09/2018	26/10/2018	22/11/2018	17/12/2018	29/12/2018	3/01/2019	12/01/2019	29/01/2019	19/02/2019	26/03/2019
White-faced Heron	0	0	1	0	2	1	1	1	3	0	1	1	1	0	1
Royal Spoonbill	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0

### Birds of Prey and Skuas

species	23/04/2018	17/05/2018	22/06/2018	21/07/2018	24/08/2018	14/09/2018	26/10/2018	22/11/2018	17/12/2018	29/12/2018	3/01/2019	12/01/2019	29/01/2019	19/02/2019	26/03/2019
Swamp Harrier	2	2	1	1	1	1	0	1	1	0	0	1	0	2	0
Arctic Skua	0	2	0	0	0	0	0	0	0	0	0	3	0	0	1

### Waterfowl

species	23/04/2018	17/05/2018	22/06/2018	21/07/2018	24/08/2018	14/09/2018	26/10/2018	22/11/2018	17/12/2018	29/12/2018	3/01/2019	12/01/2019	29/01/2019	19/02/2019	26/03/2019
Black Swan	0	0	0	0	0	0	0	0	0	0	0	4	3	3	3
Canada Goose	247	97	1	0	4	22	24	22	0	0	10	10	0	85	254
Paradise Shelduck	2	0	0	0	0	2	9	2	0	0	0	0	0	0	11
Mallard/Hybrid	107	65	18	75	16	12	24	10	12	4	2	8	6	48	73
NZ Shoveler	0	0	0	0	0	4	2	0	0	0	0	0	0	0	0
Grey Teal	92	8	0	2	2	4	4	1	3	0	0	0	11	10	87
NZ Scaup	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>448</b>	<b>170</b>	<b>19</b>	<b>77</b>	<b>22</b>	<b>44</b>	<b>63</b>	<b>38</b>	<b>15</b>	<b>4</b>	<b>12</b>	<b>22</b>	<b>20</b>	<b>146</b>	<b>428</b>

### Waders

species	23/04/2018	17/05/2018	22/06/2018	21/07/2018	24/08/2018	14/09/2018	26/10/2018	22/11/2018	17/12/2018	29/12/2018	3/01/2019	12/01/2019	29/01/2019	19/02/2019	26/03/2019
SIPO	2	6	12	15	6	22	14	6	17	8	7	17	48	7	1
Variable Oystercatcher	11	9	6	4	2	4	4	4	4	2	2	2	2	2	2
Spur-winged Plover	8	12	8	2	10	10	4	6	8	8	21	4	9	19	27
Banded Dotterel	13	2	2	0	0	8	12	8	28	29	63	43	54	63	15
Black-fronted Dotterel	4	2	2	2	2	5	2	2	2	2	3	2	0	2	1
Wrybill	0	0	0	0	0	0	4	0	0	0	1	1	0	0	0
Tumstone	2	0	0	0	0	0	3	3	3	1	1	1	2	4	0
Pied Stilt	19	2	0	3	10	25	15	6	7	5	9	17	12	21	32
<b>TOTAL</b>	<b>59</b>	<b>33</b>	<b>30</b>	<b>26</b>	<b>30</b>	<b>74</b>	<b>58</b>	<b>35</b>	<b>69</b>	<b>55</b>	<b>107</b>	<b>87</b>	<b>127</b>	<b>118</b>	<b>78</b>

### Gulls

species	23/04/2018	17/05/2018	22/06/2018	21/07/2018	24/08/2018	14/09/2018	26/10/2018	22/11/2018	17/12/2018	29/12/2018	3/01/2019	12/01/2019	29/01/2019	19/02/2019	26/03/2019
Black-backed Gull	108	143	294	71	259	74	52	83	41	19	35	26	7	36	80
Red-billed Gull	111	116	232	364	27	99	35	183	83	123	n.c.	92	95	93	106
Black-billed Gull	119	6	2	216	4498	7130	7182	4770	2544	1902	n.c.	1650	1514	433	35
<b>TOTAL</b>	<b>338</b>	<b>265</b>	<b>528</b>	<b>651</b>	<b>4784</b>	<b>7303</b>	<b>7269</b>	<b>5036</b>	<b>2668</b>	<b>2044</b>	<b>35</b>	<b>1768</b>	<b>1616</b>	<b>562</b>	<b>221</b>

### Terns

species	23/04/2018	17/05/2018	22/06/2018	21/07/2018	24/08/2018	14/09/2018	26/10/2018	22/11/2018	17/12/2018	29/12/2018	3/01/2019	12/01/2019	29/01/2019	19/02/2019	26/03/2019
Caspian Tern	1	1	5	2	1	1	1	1	3	2	1	1	2	4	1
White-fronted Tern	14	82	0	3	26	1	85	13	26	294	441	104	74	49	6
Black-fronted Tern	32	2	0	2	3	2	2	7	12	4	17	6	24	66	6
<b>TOTAL</b>	<b>47</b>	<b>85</b>	<b>5</b>	<b>7</b>	<b>30</b>	<b>4</b>	<b>88</b>	<b>21</b>	<b>41</b>	<b>300</b>	<b>459</b>	<b>111</b>	<b>100</b>	<b>119</b>	<b>13</b>



### Other Species

Occasionally seabirds are observed feeding close inshore around the river mouth and interacting with local birds. In 2018-19 observations included two records of **Australasian Gannet** and one record of **Giant Petrel** (but definitive ID of whether it was a Northern or Southern species was not determined).

**Welcome Swallow** numbers fluctuated throughout the year with highest numbers (22) in January and none recorded in April-May-June.



*A variety of birds use the spit adjoining the hapua for roosting and nesting areas.*



These braided river birds are amongst the species present at the Ashburton / Hakatere River mouth.

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### 6.3 Ecological values – freshwater fish

A survey of the spring fed tributary to the true right of the Ashburton / Hakatere River mouth has been undertaken by Graeme Clarke in February 2019 (Environment Canterbury Science Team Leader - Water Quality and Ecology).

The spring fed stream is likely to be fed by a combination of land surface recharge and water lost from the Ashburton / Hakatere River. The spring fed nature of the stream means it is generally cool, and is assumed to be reasonably well oxygenated.

Thick sediment covers the stream bed in the areas where willows are present, with an underlying gravel base. The sediment is likely to impact on the stream community. There is a marked reduction in the diversity and number of fish found in the area with willows compared to the area downstream. Furthermore, the willow roots cover the stream bed in places, and prevent the development of a riparian margin and the provision of suitable fish habitat.

The tributary to the true right of the Ashburton River/ Hakatere is host of a very diverse fish community as listed below (based on surveys by DOC and ECan).

#### Species list

- Common bully
- Giant bully
- Upland bully
- Canterbury galaxid
- Inanga
- Short finned eel
- Long finned eel
- Blue gill
- Flounder
- Smelt
- Brown trout

The wide range of fish species present is likely to be a result of the location of the stream close to the marine environment and hāpua, the good habitat in the lower reaches and the stable flow regime. The range of size classes of eels means that eels have been present here for some time. The presence of pregnant inanga indicates they are likely to be spawning in the limited habitat available here.

Trout observed covered two size classes, and the stream does not provide habitat for fishable individuals, therefore it is likely the stream functions as a trout nursery.

The significant recreational vehicle access is likely to impact directly on the fish population, and indirectly by way of sediment disturbance/settling/habitat smothering.

*Phormidium*/cyanobacteria is present on the stream bed. This is likely to impact on the uses of the stream, both cultural and recreational. The management of *Phormidium* in this context is limited to preventing the mobilisation of sediment along the stream banks and within the stream. There is growing evidence that *Phormidium* responds positively to the presence of sediment. The sediment provides a source of phosphorus that the *Phormidium* can utilise. Limiting the amount of sediment in the stream will have a range of benefits, including reducing the abundance of *Phormidium*.

The presence of willows in the upstream reaches, and their continuing migration downstream is likely to be the factor most impacting or limiting the aquatic values present here. It would be desirable to do away with the willows along the stream because of their adverse effects on the stream. Applying a herbicide to willows, eg. basal spray, and let them stand, instead of mechanical removal would avoid silt sediment and disturbance to the creek bed. Once the trees are dead, suitable riparian plants can be established in amongst the standing trees along the margins to provide habitat and cover for the fish and invertebrates present.

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inanga



juvenile brown trout



smelt

Photos: Graeme Clarke

**Canterbury mudfish** (*Neochanna burrowsius*) were last recorded at Ashton Beach in 2004.



*Canterbury mudfish were recorded in stockwater/irrigation network and a location close to the river mouth in 2003 and 2004. Some of these sites may be dry ground now, however the site closest to the river mouth may still contain mudfish. (Ref. Preliminary Canterbury mudfish (*Neochanna burrowsius*) sub-population assessment. Prepared for the Department of Conservation, Canterbury Conservancy in August 2007).*

## 6.4 Ecological values – vegetation

A survey of the ecological values of the terrestrial habitats of the Ashburton River/Hakatere hāpua and surrounds on the Low Plains Ecological District was undertaken over two days in January 2019 by Mark Parker, Scientist – Land ecology, Environment Canterbury. This work was undertaken to supply the project manager information on the values present at the site and to delineate the vegetation types currently present in the terrestrial and wetland habitats.

### List of remnant native vegetation recorded from the Ashburton River/Hakatere

Although there is very little left of what would have been here in the past, what is left is not insignificant. Out of 77 species present on site, only 18 species are native. However, more diverse remnants of native species are located a short distance north along the coast near Wakanui Beach.

<i>Calystegia soldanella</i>	shore bindweed/rauparaha
<i>Carmichaelia australis</i>	native broom/mākaka
<i>Carex pumila</i>	sand sedge
<i>Crassula sinclairii</i>	Sinclair's stonecrop
<i>Cordyline australis</i>	cabbage tree/ tī kōuka
<i>Cotula coronopifolia</i>	batchelors buttons
<i>Discaria toumatou</i>	matagouri/tūmatakuru
<i>Eleocharis acuta</i>	sharp spike sedge
<i>Isolepis prolifera</i>	
<i>Limosella lineata</i>	mudwort
<i>Muehlenbeckia australis</i> *	pōhuehue
<i>Muehlenbeckia axillaris</i> *	creeping pōhuehue,
<i>Muehlenbeckia axillaris x ephedroides</i> *	hybrid pōhuehue
<i>Muehlenbeckia complexa</i> var. <i>complexa</i> *	small leaved pōhuehue
<i>Muehlenbeckia ephedroides</i>	leafless pōhuehue
<i>Phormium tenax</i>	NZ flax/harakeke
<i>Poa cita</i>	silver tussock/ wī
<i>Schoenoplectus pungens</i>	three-square

\* pōhuehue support a huge array of native invertebrates

Two threatened species were present at the time of the survey:

- matagouri (*Discaria toumatou*) At Risk – Declining;
- leafless pōhuehue (*Muehlenbeckia ephedroides*) Threatened – Nationally Vulnerable.



Other species present and classed as locally uncommon are silver tussock (*Poa cita*), native broom (*Carmichaelia australis*), and swamp flax, harakeke (*Phormium tenax*, see photo).

*Convolvulus waitaha* was recorded by Mike Harding in 2014 and may still be present on the ADC Recreation Reserve. It was not seen during the January 2019 survey.

Stand of Harakeke at Southern end of Ashton Beach





Figure 1: Habitats of the Ashburton River/Hakatere hāpua. Red denotes terrestrial, green wetland. Polygon separations denote underlying vegetation differences. (sourced from Mark Parkers report)

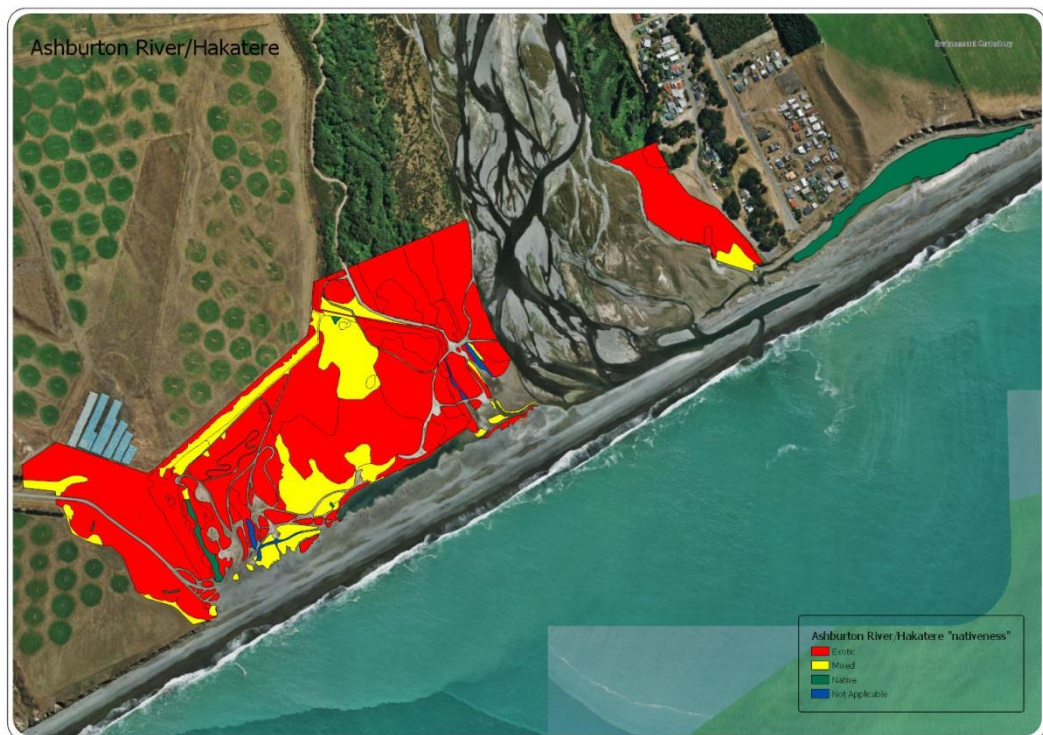


Figure 2: "Nativeness" of the vegetation types. Red denotes exotic species, yellow mixed native/exotic, green a native vegetation type; blue denotes an unvegetated surface. Note, in this example mixed means any vegetation polygon that has a native component. This is not the usual classification methodology but used in this case to highlight sensitive areas. (sourced from Mark Parker's report)



## 6.5 Archaeological site

An archaeological site (L37/14) on the true left of the river has been recorded by Heritage New Zealand Pouhere Taonga and may impact on future work in that vicinity.

The site was first recorded in 1976 and consists of an oven area with fire cracked rock, charcoal stained soil, and seal bone. It was noted as being exposed on the cliff edge bordering the lagoon. This suggests that there is a possibility of archaeological material being present in the area of proposed works, and that any excavations could have the potential to impact a subsurface feature.



Location of archaeological site L37/14. Source Canterbury Maps.

Under the Heritage New Zealand Pouhere Taonga Act 2014, archaeological sites are defined as any place occupied prior to 1900 that may provide archaeological information on the history of New Zealand. An authority is required for any works that may modify or destroy an archaeological site, including for the demolition of any building constructed prior to 1900.

If any work is planned a consultant archaeologist needs to be contacted, who then can assess the property in conjunction with any proposed development. They will confirm whether an authority is required for any proposed works. A list of consultant archaeologists can be found at the following link: <https://nzarchaeology.org/membership/consultant-directory>.

## 6.6 Cultural values

For Ngāi Tahu, water is a taonga (*treasure*) left by the ancestors to provide and sustain life. All the waterways and their associated tributaries, wetlands and springs are considered significant resources, of cultural, spiritual and historical importance to Ngāi Tāhu.

Braided river mouths are culturally significant, as they provide important habitat for many species, and are important for coastal gravel nourishment. The movement of gravels and working and reworking of sediments to form islands, plains, river mouths and coastal beaches all contribute to sustaining the mauri of that braided river system – the “working ability” of a river.

According to Te Rūnanga o Arowhenua historically, settlements occurred on both sides of the Hakatere. The river was renowned for drowning people who were crossing, more feared than the bigger rivers such as the Rangitata or Rakaia.

Historically it was used as trail to Ō Tū Wharekai, a rest area at the river mouth prior to heading inland. Historically, it was used for catching fish, harvest of waterfowl, gulls and eggs.

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Hakatere – the meaning of 'tere' is fast – it is thought to refer to massive numbers of paraki/silveries/stockells smelt converging on the area. The area has little current cultural use; people visit for harvesting of certain foods (such as whitebait and trout). Te Rūnanga o Arowhenua reiterate that there is a need to ensure that the whole catchment is healthy for the hāpua to be healthy.

## 6.7 Recreational uses

As identified in the survey, recreational uses include:

- fishing in the river, surf casting in the sea, white baiting
- bird watching
- beach combing, collecting stones
- enjoying scenery/wilderness
- picnicking, dog walking
- off road driving - 4WD, motorbikes
- swimming in the river
- jet boating, air boating
- mountain biking along the river
- freedom camping



Images from the Ashburton Museum show that outings to the beach for a picnic were popular in years gone by.



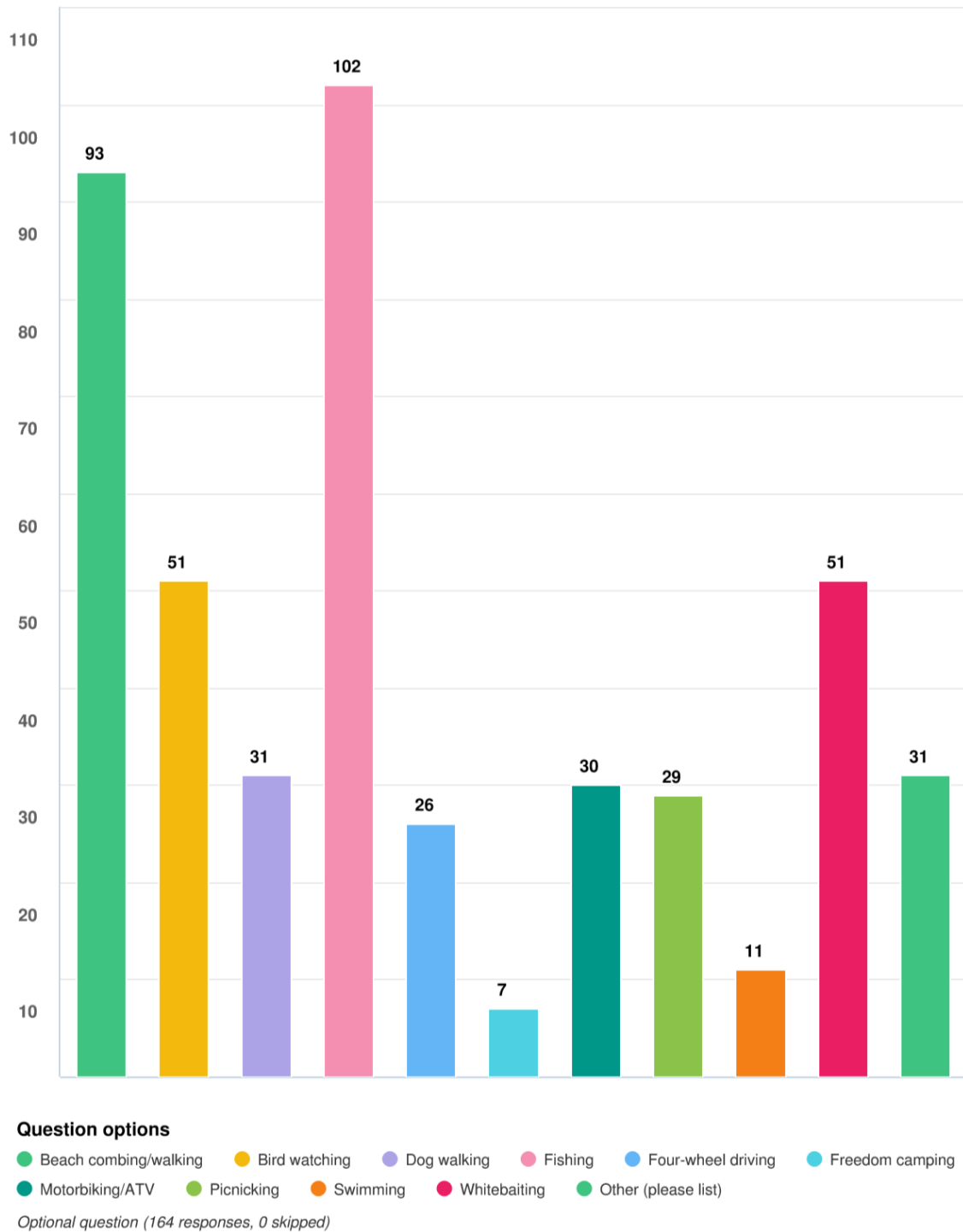
Fishing at the mouth has a long history, particularly in conjunction with the huts settlement. It is still a very popular as is white baiting. Surf casting is also popular. Photos sourced from Ashburton Museum



Hakatere Hut development between 1900 & 1982 (Photo sourced Ashburton Museum).

Motorised vehicle use, particularly on the ADC Recreation Reserve and DOC Kōngutu Reserve at Ashton Beach is evident. Multiple tracks dominate this open space and continue into the river bed mudflats/delta area and along the spit to the river mouth.

The Ashburton / Hakatere River Mouth User Survey report 2019 provides an indication of the recreational uses of the mouth and environs. Fishing had most responses as a popular activity, then beach combing/walking, followed by bird watching and white baiting.



*Responses to the question “What recreational activities do you do at the Ashburton River/Hakatere Mouth?” from the Ashburton / Hakatere River Mouth Users survey.*



## 6.8 Summary of values and threats that came from the user survey and stakeholder meetings

Values that make this place special and appealing:

- Close proximity to Ashburton; easy access to the beach and river
- Wilderness in an otherwise developed Canterbury Plains; generally untouched & scenery unique to the South Island; magnificent outlook from the mountains to the sea
- Fresh air, open space; local atmosphere; peace, tranquillity, serenity
- The variety of bird life and the unspoilt natural landscape; natural habitat, bird colonies
- A feeding ground for birds of all description; a place for fish to spawn
- The natural values that the river, estuary and bar still retained despite the volume of human activity.
- Dynamic and everchanging river mouth; the mouth opens in high flow and is blocked in low flow.
- The area is enjoyed by many families doing a range of things.
- Free access to for recreational off road use of 4WD and motor bikes, in a time where access is getting less and less
- A good place to teach children to ride motorbikes, fish and whitebait.
- Freedom camping providing everyone is respectful to other users and the land.
- Dogs love running around without much worry
- Good place for a barbeque when boating the Ashburton river

Broad overview of adverse effects on values:

- The impact of recreational access across the whole area on nesting & feeding of braided river and shore birds is of concern to many stakeholders.
- Multiple tracks in the Ashton Beach area and effects of this on biodiversity in the springfed stream and on remnant native vegetation.
- Frequent dumping of rubbish and car bodies at Ashton Beach is a frustration to recreational users and receives periodic newspaper attention with calls for intervention to eliminate this behaviour.
- Noise from motor vehicles, predominantly motor bikes.
- Concern over the number of unregistered vehicles in the area.
- Dogs left free to chase birds.
- Significant sacrifice of biodiversity values has already occurred as a result of allowing recreational access from the hut settlement to the beach heading north.

## 7. Relevant aspects of the NZ Coastal Policy Statement 2010, the Regional Policy Statement & Canterbury Water Management Strategy

### **Objectives of the NC Coastal Policy Statement 2010**

#### **Objective 1**

*To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by:*

- *maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;*
- *protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and*
- *maintaining coastal water quality and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity.*

#### **Objective 2**

*To preserve the natural character of the coastal environment and protect natural features and landscape values through:*

- *recognising the characteristics and qualities that contribute to natural character, natural features and landscape values and their location and distribution;*
- *identifying those areas where various forms of subdivision, use, and development would be inappropriate and protecting them from such activities; and*
- *encouraging restoration of the coastal environment.*

#### **Objective 3**

*To take account of the principles of the Treaty of Waitangi, recognise the role of tangata whenua as kaitiaki and provide for tangata whenua involvement in management of the coastal environment by:*

- *recognising the ongoing and enduring relationship of tangata whenua over their lands, rohe and resources;*
- *promoting meaningful relationships and interactions between tangata whenua and persons exercising functions and powers under the Act;*
- *incorporating mātauranga Māori into sustainable management practices; and*
- *recognising and protecting characteristics of the coastal environment that are of special value to tangata whenua.*

#### **Objective 4**

*To maintain and enhance the public open space qualities and recreation opportunities of the coastal environment by:*

- *recognising that the coastal marine area is an extensive area of public space for the public to use and enjoy;*
- *maintaining and enhancing public walking access to and along the coastal marine area without charge, and where there are exceptional reasons that mean this is not practicable providing alternative linking access close to the coastal marine area; and*

- *recognising the potential for coastal processes, including those likely to be affected by climate change, to restrict access to the coastal environment and the need to ensure that public access is maintained even when the coastal marine area advances inland.*

#### **Objective 5**

*To ensure that coastal hazard risks taking account of climate change, are managed by:*

- *locating new development away from areas prone to such risks;*
- *considering responses, including managed retreat, for existing development in this situation; and*
- *protecting or restoring natural defences to coastal hazards.*

#### **Objective 6**

*To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that:*

- *the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits;*
- *some uses and developments which depend upon the use of natural and physical resources in the coastal environment are important to the social, economic and cultural wellbeing of people and communities;*
- *functionally some uses and developments can only be located on the coast or in the coastal marine area;*
- *the coastal environment contains renewable energy resources of significant value;*
- *the protection of habitats of living marine resources contributes to the social, economic and cultural wellbeing of people and communities;*
- *the potential to protect, use, and develop natural and physical resources in the coastal marine area should not be compromised by activities on land;*
- *the proportion of the coastal marine area under any formal protection is small and therefore management under the Act is an important means by which the natural resources of the coastal marine area can be protected; and*
- *historic heritage in the coastal environment is extensive but not fully known, and vulnerable to loss or damage from inappropriate subdivision, use, and development.*

#### **Objective 7**

*To ensure that management of the coastal environment recognises and provides for New Zealand's international obligations regarding the coastal environment, including the coastal marine area.*

### **Regional Policy Statement – Environment Canterbury**

#### **8.1.5 PROVISION OF APPROPRIATE ACCESS**

*There is a need to maintain and enhance public access, and access for Ngāi Tahu, to and along the coastal marine area while controlling those aspects of public access, such as some types of vehicle use, which threaten the values of the coastal environment.*



## **Explanation**

*Access to and along the CMA is important for the well-being of people and the community. In particular, access for recreation, food gathering and fishing and for cultural activities, is a fundamental part of life in Canterbury. There must also be access to and along the CMA for commercial purposes such as for port operations, aquaculture, fishing, energy and tourism.*

*Restrictions on public access can be entirely appropriate. For example, access to sites of cultural significance to Ngāi Tahu as tāngata whenua, including wāhi tapu or tauranga waka sites, by the general public may be insensitive to the cultural or spiritual traditions of Ngāi Tahu. Restricted access may be necessary for conservation purposes. Some areas, such as sand dunes or areas where birds nest on the ground, are particularly sensitive to the adverse effects of vehicles. Access across private land can impinge on the legal rights of the landowner. Access may need to be restricted if there are hazards such as unstable cliffs, presence of natural toxins or dangers to health and safety from farming or other activities.*

*There is a need to strike a balance between providing and maintaining access that enables the health and well-being of the community, while ensuring that this access does not cause significant adverse effects on coastal values.*

### **8.2.4 Preservation, protection and enhancement of the coastal environment**

*In relation to the coastal environment:*

- *Its natural character is preserved and protected from inappropriate subdivision, use and development; and*
- *Its natural, ecological, cultural, amenity, recreational and historic heritage values are restored or enhanced.*

### **8.3.5 Maintenance and enhancement of public and Ngāi Tahu access**

*To maintain and enhance public and Ngāi Tahu access to and along the coastal marine area, subject to:*

- *protecting public health and safety.*
- *avoiding significant adverse effects on natural, physical, amenity, recreational, cultural and historic heritage values of the coastal environment.*
- *avoiding damage to natural buffers to coastal erosion.*
- *protecting Ngāi Tahu sites of special value.*

## **ANTICIPATED ENVIRONMENTAL RESULTS**

- *The natural, amenity, recreational, cultural, landscape and historic heritage values of the coastal environment will be maintained and in some places enhanced.*

### **Canterbury Water management Strategy Targets include:**

*Support the dynamics of river mouth and coastal processes:*

- *Implement actions to correct the decline in useable braided river bird habitat. Key point: Many rare species are at risk from recreational use, introduced predators and weed species, and engineering works.*
- *The dynamic nature of braided rivers is highly important. Flow of gravel is critical to the braided nature of these rivers.*

## 8. Concept to protect and enhance the biodiversity values at the mouth and reduce adverse effects on these values

The importance of the braided river and shore bird habitat is recognised by many users of the area.

The relevant objectives in the NZ Coastal Policy Statement are:

- *To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land.*
- *To maintain and enhance the public open space qualities and recreation opportunities of the coastal environment:*
- *recognising that the coastal marine area is an extensive area of public space for the public to use and enjoy;*
- *maintaining and enhancing public walking access to and along the coastal marine area without charge*

Regional Policy Statement

Objectives 8.2.4 Preservation, protection and enhancement of the coastal environment:

- *Its natural character is preserved and protected from inappropriate subdivision, use and development; and*
- *Its natural, ecological, cultural, amenity, recreational and historic heritage values are restored or enhanced.*

### Compatibility of values

Some stakeholders are keen to pursue their recreational activities as they have done so for a long time. However, to retain the ‘status quo’ is not a desired outcome as adverse effects on the local biodiversity are evident and form the basis to requiring change in order to protect natural values in perpetuity.

While many recreational users are respecting the values present, more needs to be done to protect and enhance ecosystems so they can fully function. Motorised vehicles roaming freely, uncontrolled dogs chasing birds, people walking through the cordoned off areas/bird nesting sites seem to be the main “offenders” in disrupting ecosystems and habitat.

The site is of constant International Importance to Spotted Shag; is of seasonal International Importance to Black-billed Gull and White-fronted Tern; is at the northern distribution limit of Otago Shag; and is an excellent representative example of a habitat type – braided river delta and river mouth lagoon/hāpua. Appropriate protection is paramount for the gull/tern breeding colonies and the shag roost from human disturbance, vehicles, dogs, etc. Flexibility to adjust to varying conditions is essential, depending on the presence/absence of the birds.

While adaptive management is already happening through signage and temporary fencing of breeding habitat, it is felt this is not enough as these measures are not respected by all users. Honorary rangers and/or introducing by-laws to achieve enforcement under the Conservation and Wildlife Acts are potential methods to achieve better outcomes.

The proposal is to dedicate an area at the Ashburton / Hakatere River mouth as a **Wildlife Sanctuary**.

## 8.1 Concept A

This proposal includes an area dedicated as a “Wildlife Sanctuary”, which would be managed primarily to protect and enhance biodiversity values, and allow for traditional recreational activities such as fishing, white baiting and surf casting. Public walking access to and along the coastal marine area would be maintained and enhanced.



### Key

- |  |   |
|--|---|
| ●●●●● Proposed area for a “Wildlife sanctuary” | potential wetland areas on low lying ground |
| Proposed revegetation planting                 | ●●●●● saltmarsh, saltmeadow                 |
| ●●●●● Car park                                 | ●●●●● boardwalk                             |
| ●●●●● Vehicle access                           | ●●●●● dog access                            |



The area of a Wildlife Sanctuary would encompass: the river bed from the coast upstream to just above the top of the settlement, and part of Ashton Beach.

Exclusion of motorised vehicles and dogs would potentially improve wildlife habitat.

The concept also includes:

- A potential wetland area on the low lying coastal land, south of the river mouth towards Ashton Beach, within the proposed “Wildlife Sanctuary”. The feasibility of increasing ‘wet areas’, and the lagoon habitat to facilitate avian biodiversity, will need to be investigated further. To increase “wet areas” in this location would not conflict with the fishing activities at the mouth, but provide potentially suitable areas for birds.
- It is envisaged that shallow ponds, open mudflats and/or unvegetated muddy substrate, salt meadow and saltmarsh areas could be created. These habitat types are all either rare, absent or lost within the Ashburton District. Earthworks would be required to deepen low lying areas where the water table may be relatively close to the surface.
- Buffer planting of appropriate native plant communities which would have occurred locally in the past and are still present further up the coast on private land, would not only enhance the area but also improve biodiversity values and habitat for eg. lizards and invertebrates. Once the plantings are established these would provide a barrier to protect the low lying wet areas from motorised vehicles.
- Board walks, seats and a bird hide could be integrated to provide an appreciation and learning facility/opportunity as well as providing a safe and relatively undisturbed environment for birds to nest and roost.
- Walking only access from Ashton Beach to the river mouth is envisaged. Within the “Wildlife Sanctuary” vehicular traffic and dogs would be excluded to protect the natural values.
- A carpark is proposed on the ADC Recreation Reserve. Nearby, picnic tables and seats could be incorporated.
- Multiple tracks created by motorised vehicles are evident at Ashton Beach, which does affect the visual qualities of the site. While the 4WD club was represented at the public meeting, it was mentioned that some off road users such as trail bike riders were not represented in the discussions. There was general agreement that off road activities require management as these activities pose a threat to natural values; bird habitat; in stream values; remnant vegetation as well as the ambience of the place.
- The proposed vehicle access on the true right of the river would need to be fenced off. This could be achieved with posts and steel cables as well as revegetation of native plant species.
- If a crossing through the spring fed stream is necessary, consideration needs to be given to the best location and the reduction to one crossing as opposed to multiple crossings, which is desirable to protect and enhance the rich and diverse in stream values.

Access from the settlement to the beach is becoming difficult from Hakatere Drive, due to the eroded cliff. While this was extensively discussed during the stakeholders meeting, it is outside the scope of this management strategy. It is a matter for ADC to resolve.

## **Presentation of Concept A to landowners and stakeholders**

A public meeting with the stakeholders was held on 8 June 2019 at the Hakatere Hutholders Hall.

Additional information presented at the meeting included:

- an overview of where the draft strategy was at, presented by Donna Lill
- an update by Environment Canterbury staff on water quality and quantity in the river presented by Janine Holland & Graeme Clarke, Environment Canterbury
- a summary of freshwater values in the spring fed stream presented by Graeme Clarke, Environment Canterbury
- the importance of braided rivers; a summary of Andrew Crossland's bird monitoring report; and the values of remnant native vegetation in context of the site presented by Ines Stäger.

The concept for the establishment of a Wildlife Sanctuary was then presented as included in the discussion document dated 30 May 2019 (Concept A), which was previously distributed to interested people and stakeholders.

Discussion took place, particularly with regards to the exclusion of motorised vehicles within the proposed Wildlife Sanctuary. Some recreational users feel strongly that motorised access to the mouth from Ashton Beach needs to be retained for fishing, white baiting and hunting.

While the river opening at present is north of the proposed Wildlife Sanctuary and access with a 4wheel bike from the settlement is possible, this situation could change when the location of the river opening changes. Therefore access was also asked for, to allow vehicle access from the north to wherever the opening may be.

### **Concept A - a 'Wildlife Sanctuary' as proposed in the discussion paper was supported in principal by:**

- Ashburton District Council
- Environment Canterbury
- Department of Conservation
- Aoraki Environmental Consultancy Limited (AEC Ltd) and Te Rūnanga o Arowhenua
- Land Information New Zealand
- A number of individuals participating at the public meeting on 8 June 2019.

**Aspects of the concept that did not get support:**

The exclusion of vehicles within the proposed Wildlife Sanctuary was opposed by Fish & Game, Walking Access NZ, and individuals, such as fishers, 4WDers.

Additional 4WD access up river was requested by Fish & Game for fishers.

4WDers have traditionally driven in the river, from the main bridge to the coast once a year, they are keen to retain this journey. It was pointed out that there would still be access to the beach via the proposed access track alongside the true right of the river.

The exclusion of dogs within the Wildlife Sanctuary was not supported by Fish & Game as dogs are essential for effective game bird hunting. Their reason for wanting to retain this area for game bird hunting is that there are only very few public hunting areas, and members value this for ease of access.

It is important to add that only a few individuals at the meeting raised dog exclusion as an issue.

In feedback on the discussion paper DOC noted concerns about the process, quote: “the proposals to exclude some activities (dog walking, vehicle use) has been made without achieving broad consensus of all user groups, and this is likely to mean that the plan is not supported by a significant section of the community. This may exacerbate divisions between ‘wildlife advocates’ and ‘recreation advocates’ (e.g. white baiters, dog walkers, fisherman etc) which in turn may cause more harm than good in the longer term. Engagement with user groups so far appears to have focussed on providing them with the opportunity to air their views without making the compromises required to achieve a consensus. In the absence of increased resources to ensure compliance with any changes in the rules that apply (or might apply) to the site, for example excluding dogs and/or vehicles from the area, we suggest that either the strategy is delayed until a consensus is reached among user groups, or that a recommendation is made to undertake further workshops to achieve this”.



## 8.2 Concept B

Resulting from the public meeting on 8 June and further discussions with land owners and managers, concept B was developed with the following changes:

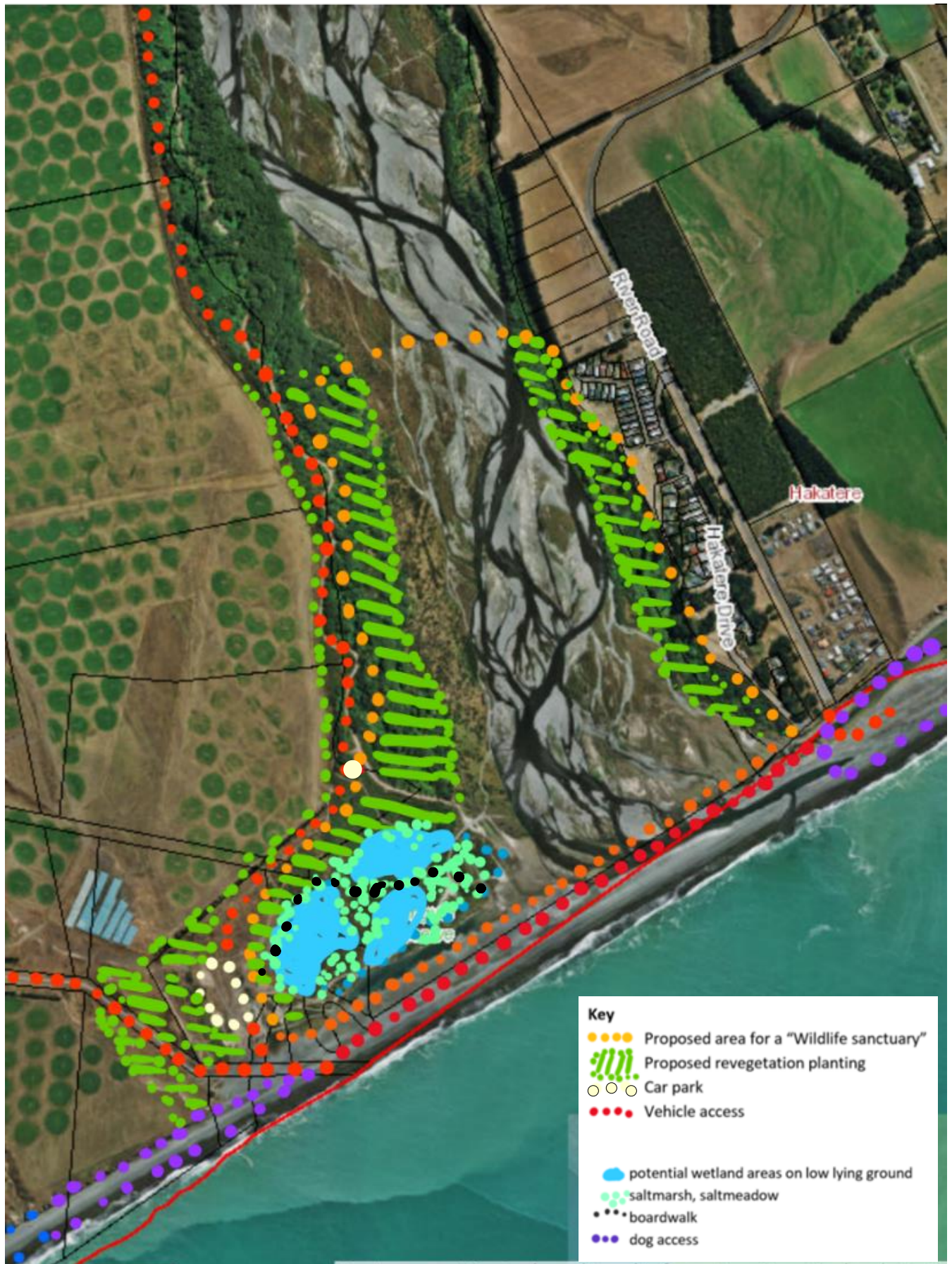
- Shifting the outline of the proposed Wildlife Sanctuary inland to allow vehicles on a single track along the coastline to access the river mouth from both north and south was a desired outcome.
- Access to get to the river's edge for fishing

Shifting the boundary of the proposed Wildlife Sanctuary means that potentially not all bird habitat is “protected”, as vehicles are driving through where birds nest and/or roost along the shingle spit. The extent of such disturbance should be observed and monitored.

A marked single track is proposed for vehicular traffic along the beach. Marker posts are installed where practicable, and marker paint may be used to mark stones to delineate a route. This is to avoid unnecessary disturbance of bird habitat. Furthermore a speed limit was proposed. In the absence of enforcement, this will rely on the goodwill of people “to stick” to the guidance.

Access upstream to the river was requested by Fish & Game. A carpark is proposed (white dot) along the vehicle track on the true right. From there it is only a short stretch to walk to the river. As in concept A, the feasibility of a potential wetland area on low lying ground will have to be explored.

## Concept B



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## 11. Examples of constructed wetlands & infrastructure

Following are some images provided by Andrew Crossland of vegetation cover and constructed wetlands as examples:

Typical coastal saltmarsh habitat could include planted vegetation such as *Juncus kraussii*, *Apodasmia similis*, *Ficinia nodosa*, *Plagianthus divaricatus*, *Coprosma propinqua*, *Coprosma crassifolia*, etc, and it could be planted to look like the image below. Once established, this vegetation would spread naturally.



Salt meadow (also known as low turf saltmarsh) is easily established in soils with high salinity by scraping and then either self-colonisation or planting – depending on the proximity of a seed source. Key species are *Sarcocornia quinqueflora*, *Samolus repens*, *Selliera radicans*, *Cotula coronopifolia*, etc.







Shallow pools within a coastal saltmarsh can attract a wide diversity of water birds, with seasonal influxes of large numbers.



Boardwalks and bird hides, various concepts



*Photos: Ines Stäger*

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## 12. Recommendations for the Ashburton / Hakatere River mouth for wildlife management and habitat enhancement

### 12.1 General considerations

1.1 The Resource Management Act states that the preservation of the natural character of wetlands is a matter of national importance.

- *Wetlands are among the most diverse and productive ecosystems. Less than 10% of wetlands remain. They provide essential services to ecosystem health. However they continue to be degraded and converted to other uses.*
- *Bird habitat in this area is of international importance, appropriate protection and enhancement is paramount. The goal is to ensure values are safeguarded for future generations to enjoy.*

1.2 Consideration should be given to some form of recognition and protection for the Ashburton / Hakatere River mouth, in particular the proposed area of a “Wildlife Sanctuary”.

- *There are various options to achieve this such as through a designation as a reserve under the Reserves Act, and/or a listing as a Ramsar site.*
- *Official recognition would ensure the values are protected in perpetuity. A designation under the Reserves Act can be “tailor made” to suit the site; to protect its values and allow for appropriate recreational activities.*
- *The Convention on Wetlands, called Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. <https://www.ramsar.org/>. NZ sites are: Awarua Wetland; Farewell Spit; Firth of Thames; Kopuatai Peat Dome; Manawatu river mouth and estuary; Whangamarino Wetland.*

1.3 The Ashburton / Hakatere River is an important braided river from the source at Ō Tū Wharekai to the sea, culturally and ecologically. Everything is connected, the entire river deserves respect. What happens upstream may affect the mouth and environs.

- *This is an aspect that needs to be kept in mind, the mouth can’t be looked at in isolation.*

1.4 Further disseminate specific knowledge amongst the residents and visitors about the unique and/or regionally/nationally/internationally significant wildlife values of the site.

- *Well-designed interpretation panels with good graphics and few words are most effective. The use of positive language is far more effective than negative language, if needed use graphics instead of “do not”.*
- *Production of a well-designed information pamphlet for the area drawing attention to its values.*
- *Keeping the social media updated.*
- *Holding community events/activities with enthusiastic and knowledgeable people showing off the richness of the site.*

1.5 Active enforcement of rules and regulations around the Wildlife Act, Dog Control Act, whitebait regulations, unregistered motorbikes and vehicles on paper roads, etc. is encouraged.

*Raise the level of awareness, self-compliance and sensible behaviour around wildlife at the river mouth and delta areas. For example, a roster of honorary wardens at Caroline Bay during the blue penguin nesting season is an effective way to protect the values and provide visitors with information of the values present.*

## 12.2 Protection and enhancement of bird habitat

2.1 Extension of a wetland area for potential bird habitat is proposed as outlined in the concepts. The feasibility with regards to hydrology, topography and required mechanical intervention, scraping, earthworks etc. needs to be explored. Small berms utilising excavated material is the most effective way for areas that are to be revegetated.

- *This concept requires input from various experts, such as engineers, hydrologists etc. Initial contact was made with the river engineer to discuss the feasibility. The hydrology of the area is also being investigated. In order to design a feasible concept, a topographic dataset for conceptual purposes would be required. This could be achieved utilising the existing LiDar information, aerial photograph and LINZ GIS boundaries.*
- *If it is feasible to create additional wetland/dryland systems, careful design is essential to provide a well-functioning and aesthetically pleasing wetland. Otipua Wetland in Timaru is a good example of what can be achieved.*

2.2 Existing native vegetation within the proposed wetland construction area would need to be transplanted ahead of earthworks being undertaken.

- *The proposed extension of the wetland area is just a concept at this stage. A layout needs to be established at which stage affected vegetation can be considered. There is so little native vegetation left, therefore it is important to save and transplant if necessary.*

2.3 Find better ways to protect the gull/tern breeding colonies and the shag roost from human disturbance. Adaptive management is essential as this requires flexibility in terms of presence and location of birds.

- *In addition to current use of signage and temporary fencing, other methods like wardening (full-time in season or targeted times like weekends), outreach, and/or seasonal no-go zones could be tried.*

2.4 Flood events will occur from time to time, which requires adaptive management. Temporary fencing has been undertaken to protect bird roosting sites. Plastic twine or tape should be avoided as it can potentially be washed out to sea and be harmful to fish and birds.

- *Instead, use biodegradable canvas tape for the temporary fencing.*

2.5 Continue and build on current efforts at predator control, expanding effort upstream and along the beach.

- *Adjust predator control programmes according to experience, knowledge and science.*

2.6 For fishers or white baiters to access their locations, a single route along the beach, avoiding bird nesting or roosting, should be determined to avoid multiple tracking.

- *Where practical, marker stakes could be placed. In areas where it is not practical to place marker stakes, marker paint could be applied to rocks to indicate a suitable single route.*



2.7 Recreational opportunities for trail bike riders and 4WD drivers, should be kept away from the sensitive river mouth environment. As indicated in the concept, access is proposed parallel to the true right bank of the river from the carpark at Ashton Beach to Croys Road. Further upstream access from the north may need to be explored

- *This is to avoid disturbance and impacting on river mouth/delta wildlife and within the proposed “Wildlife Sanctuary”.*

2.8 Post and steel cable are proposed adjacent to a dedicated route, to keep vehicles on track.

- The use of concrete blocks for temporary exclusion of vehicles is a possibility. As a permanent measure, gabion baskets could be used in areas where posts/stakes cables and ropes are not option e.g. closer to the beach.
- *These options have been discussed with the river engineer. Details such as location and materials used can be worked out when a concept for the wetland is finalised.*

### 12.3 Spring fed stream management

3.1 The Management area is to be extended as shown in the concept and marked as “Wildlife Sanctuary” to include the spring of the spring fed stream in order to protect its values.

- *The stream life is rich and diverse and deserves protection and enhancement.*

3.2 If it is necessary to have vehicle access through the stream this should be limited to one crossing to avoid damage and silting of the streambed.

- *Currently there are many crossings through the creek, this is not desirable and is likely to affect the instream values.*

3.3 The willows along the creek affect the streambed. It is proposed to deal to them. Mechanical removal is not recommended as it would disturb the streambed unnecessarily. Herbicide application (e.g. basal spray) on standing trees is an effective way to ‘get rid of willows’. While they will still stand for a while, eventually the wood will disintegrate.

- Further information through the following link: <http://www.wet.org.nz/wp-content/uploads/2013/10/2a.-James-Griffiths-Lake-Ellesmere-Presentation.pdf> *This method is most effective but needs to be communicated in advance, to avoid negativity; public perception on leaving dead trees standing has in other areas attracted negative comments.*
- <https://www.niwa.co.nz/freshwater/management-tools/ecological-monitoring/wetlands/ten-years-of-willow-control-at-whangamarino-wetland-1999-2008>

3.4 Revegetation of the stream margins and beyond would add significantly to the biodiversity values of the area. It would potentially increase the habitat for inanga and other species.

- *Very little native vegetation is present. This site provides an excellent opportunity to re-introduce eco-sourced native vegetation, to celebrate what was there once. The in-stream values will also benefit from the surrounding native vegetation.*

## 12.4 General management recommendations

4.1 The formation of a management group which would take a lead in raising awareness with the local community and become 'guardians' of the area, came out of the stakeholders meeting.

- *To establish a management group would ensure momentum is being kept up to achieve better outcomes for the area. Such a group will require some good support on technical aspects and PR.*

4.2 Involving school children is another way of raising awareness and create a sense of ownership.

- *Education through school students is a very effective way of raising awareness with adults.*

4.3 Collaborative approach between landowners and stakeholders is necessary, to ensure commitment towards achieving better outcomes, and using potential resources wisely.

- *Given the recognition and importance of ecological values in the area within the proposed "Wildlife Sanctuary", resources are needed to achieve better outcomes.*

4.4 Exercising a dog on the beach means different things to different people. Dogs must be under continuous and effective control at all times. Dogs and birds and other fauna are seldom compatible. Two areas for dog walking are proposed, one to the north and the other to the south of the mouth.

- *It may be fun for dogs to chase birds but this behaviour is no fun for birds. It simply poses unnecessary stress to birds as they are 'predators' to birds. The birds will fly away and come back, but this is disturbance that they do not need, particularly during the nesting season. Input into the ADC dog control by-law when it comes up for review may be necessary to achieve clarity on where dogs are allowed.*

4.5 Avoidance of dumping of unwanted goods in the area.

- *Increased care for the area will to a certain extent deal with the perception that unwanted goods can be dumped there. Surveillance and active enforcement is needed as a clear signal that such activities are not acceptable.*

4.6 Installing a camera was proposed as a way of observing activities in the area and monitoring the success of the plan (via a count of the number of events where birds are disturbed by human activities).

4.7 Plant pest control will need to be ongoing. Unless the seed source can be eliminated, re-invasion will occur. New, native plant communities, once well established, will potentially reduce invasion. Bio control agents are proposed to reduce the vigour of plants like Old Man's Beard, gorse and broom.

4.8 Montbretia *Crocasmia x crocosmiiflora* is present in amongst the NZ flax / harakeke *Phormium tenax* on the ADC Reserve. The removal of this invasive weed is proposed, to avoid it spreading further.

*This noxious weed is dormant during the winter and was therefore not picked up during the original vegetation survey by Mike Harding. How to effectively deal to this plant can be found at the following Weedbusters link. <https://www.weedbusters.org.nz/weed-information/weed-list/montbretia/>*

4.9 Control of plant pests in the braided river to ensure braids are suitable as nesting sites.

- *In the absence of regular flushes of the river, weeds like tree lupin, gorse, broom etc establish quickly on braids.*
- *The Ashley Rakahuri River Care Group is working with DOC, experimenting mechanical techniques (with the help of a tractor and grubber), to remove weeds such as tree lupins, gorse, and broom in river beds. This would provide nesting habitat more quickly than by using herbicides.*

4.10 Restoring indigenous habitats and ecosystems, using local genetic stock where practicable; or encouraging natural regeneration of indigenous species, recognising the need for effective weed and animal pest management.

- *Eco-sourcing of plants for restoring habitats is an important aspect to retain the integrity. While little native vegetation is left on this particular site, there are remnant patches nearby to the north and at Wakanui Beach.*

4.11 Undertake an invertebrate survey to establish a base line. Invertebrates are often undervalued and over-looked in protection and rehabilitation work. The Wakanui Beach site has recently been surveyed and has revealed an interesting variety of invertebrates. For example Katipo spiders, a species threatened with extinction, is present at the nearby Wakanui Beach.

- *A base line survey would provide a starting point to compare trends in the future.*

4.12 Lizards have been noted in the area, a base line survey is recommended.

4.13 Mudfish have been previously recorded in the area, follow up work is needed to confirm if they are still present prior to work being undertaken in streams and drains.

4.14 The access from the Hakatere settlement to the beach via the coastal cliff has been damaged as a result of high seas and erosion. This matter was brought up as one of concern during the stakeholders meeting.

- *This access is not included in the area covered by management strategy and is the responsibility of ADC. It should be noted that the cliff may contain an archaeological site and this needs to be addressed prior to any future works.*

4.15 Investigate in the future if visitor numbers are high enough to justify the need for toilets on Ashton Beach.



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