

Waiau River Bird Survey Summary

The Waiau River is known to be a habitat of outstanding significance for threatened native birds. It has been shown to support the northern-most known breeding population of wrybill as well as internationally significant populations of black-fronted terns and black-billed gulls, and a regionally significant population of banded dotterel.

Previously the Waiau River has been surveyed on four occasions; in 1975, when the sections from Twin Bridges to Sandersons Road were covered, and in 2008, 2009 and 2010 when the river from Waterfall Stream to the river mouth was surveyed. Typically the braided river bird surveys are undertaken in three-year blocks, scheduled to repeat every five years. This year's survey, which had been postponed from 2015, is therefore set to occur again in 2017 and 2018.

In 2016 the Environment Canterbury led bird survey of the Waiau River ran over four days from October 25th to 28th. Forty participants took part in the survey, covering over 100KM of riverbed from the Waterfall Stream starting point, through the gorges to the river mouth (see Attachment 1). Conditions were generally good, with only one day having some rain in the morning and river flows (see Attachment 2) of manageable levels for both jet boat navigation and participant safety.

Data from this survey will be shared with the local braided river bird advocacy group BRaid and the Department of Conservation, who collates all braided river bird count datasets. These datasets provide important information on the use of the river by the bird species, informing river management decisions and agency resourcing of conservation activities.

Pictures shared by participants of the survey may be viewed [here](#).

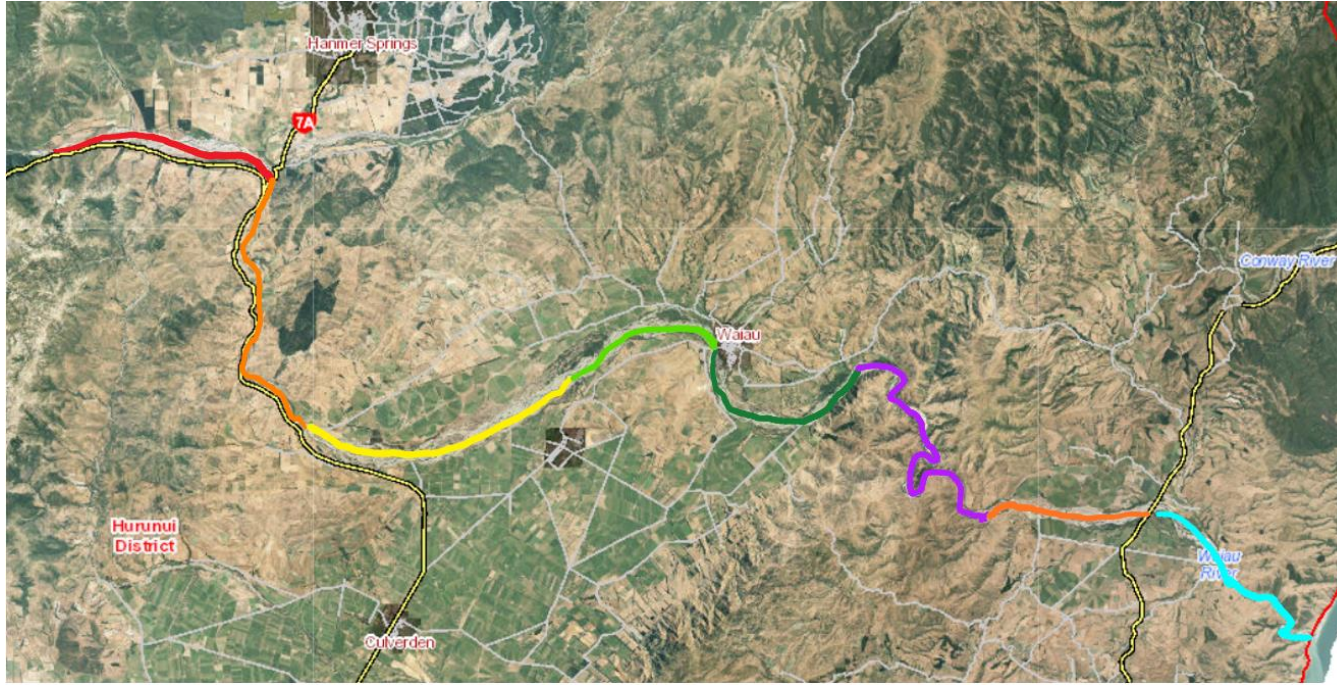
Key observations

- Wrybill, banded dotterel and black-fronted tern numbers appear to be holding steady, however two more successive years data is required before trends can be determined.
- The Tarāpuka (black-billed) gulls were not present in large numbers compared to other years.
- Greater numbers of black-backed gulls were counted than in previous years.
- Two black-fronted dotterel were observed on the river. While potentially a first record of this species on the Waiau River they are often seen to the south at Mata Kopae / St Anne's Lagoon and paddocks around Cheviot.
- Looking across four years of data (2008,09,10 & 2016) particular survey sections of the river including 1,12,4 & 7 appear to be of preference to the river birds. Such reaches could be prioritised for bird habitat management.
- A colony of black-fronted terns were located at the Shark's Tooth upstream of Twin Bridges. As the colony is vulnerable to predation, establishment of a trapline around the birds was proposed. BRaid (www.braid.org.nz) has facilitated this, enlisting the continued assistance from Brendon at Amuri Jet who will be checking the traps alongside other volunteers. A great example of community partnerships working for a conservation outcome.
- Weed encroachment of open braided river bird habitat was apparent, particularly by yellow tree lupin, willow and some false tamarisk.

Attachments

1. Survey section map
2. Waiau river flows leading up to and during the survey period
3. Total counts of river bird species 2008, 09, 10 and 2016
4. Counts of seven key river bird species during 2008, 2009, 2010 and 2016 surveys

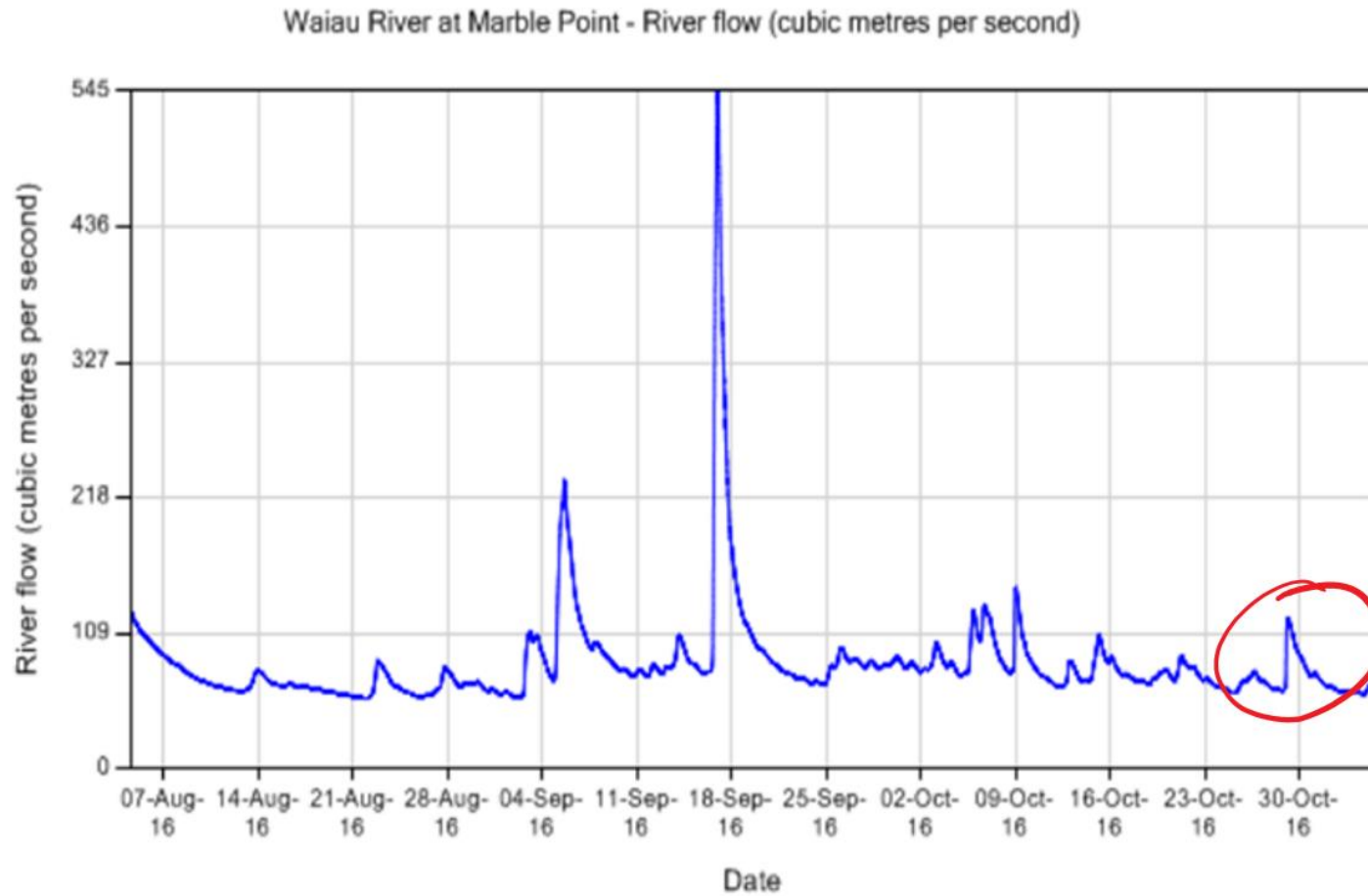
Appendix 1: Survey sections and distances of 2016 Waiau river bird survey



SURVEY SECTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
D = Day G = Group	D1 G1	D1 G2	D1 G2	D2 G1	D2 G1	D2 G2	D2 G2	D3 G1	D3 G1	D3 G2	D4 G1	D4 G1	D4 G2	D4 G2	D4 G2
	Waterfall Stream to Waiau Ferry Bridge	Waiau Ferry Bridge to Marble Point water gauge	Marble Point water gauge to Twin Bridge / Manuka Is.	Twin bridges / Manuka Island to Power lines	Power lines to Salmon Farm/Green Road	Salmon Farm/Green Road to Murray Downs/Spool	Murray Downs/Spool to Waiau Bridge	Waiau Bridge to End of Sandersons Road	Sandersons Road to Bourne Rd (E251298, N5837772)	Bourne Rd (E251298, N5837772) to Hematite Stream	Middle gorge - Hematite Stream to Leamington Rd E2527990, N5831555	Leamington Rd to SH1 bridge	SH1 bridge to Spotwood F&G access	Lower gorge - Spotswood F&G access to river mouth	River mouth
Approx Distance (KMs)	11.7	8.6	7.3	6.3	7.4	4.5	4.1	6.4	3.7	17.9	2.7	5.7	4.5	7	3.2
Total per day distance	11.7	15.9		13.7		8.6		10.1		17.9	8.4		14.7		

Appendix 2: Waiau river flows – survey time period as indicated (Source: <http://ecan.govt.nz/services/online-services/monitoring/river-flows/Pages/river-flow-chart.aspx?SiteNo=64602>)

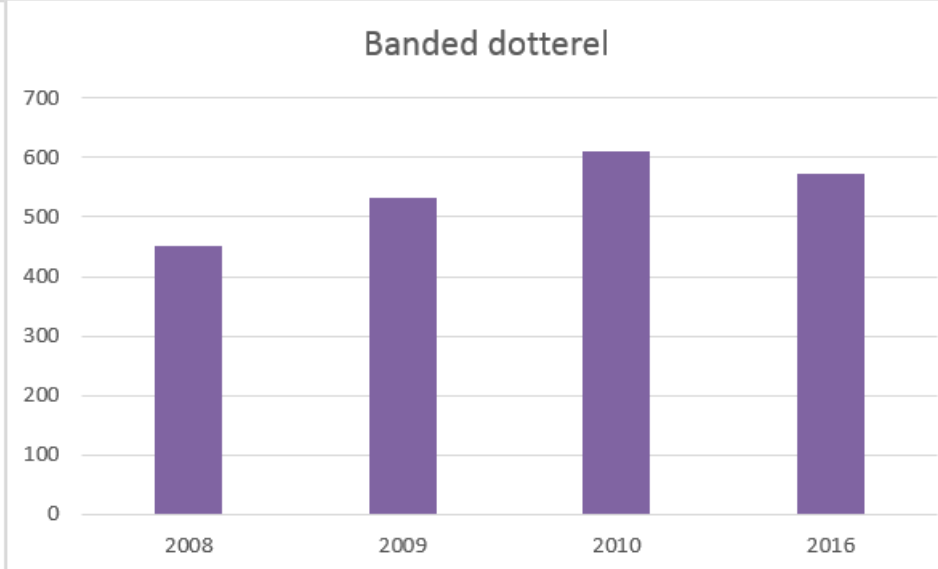
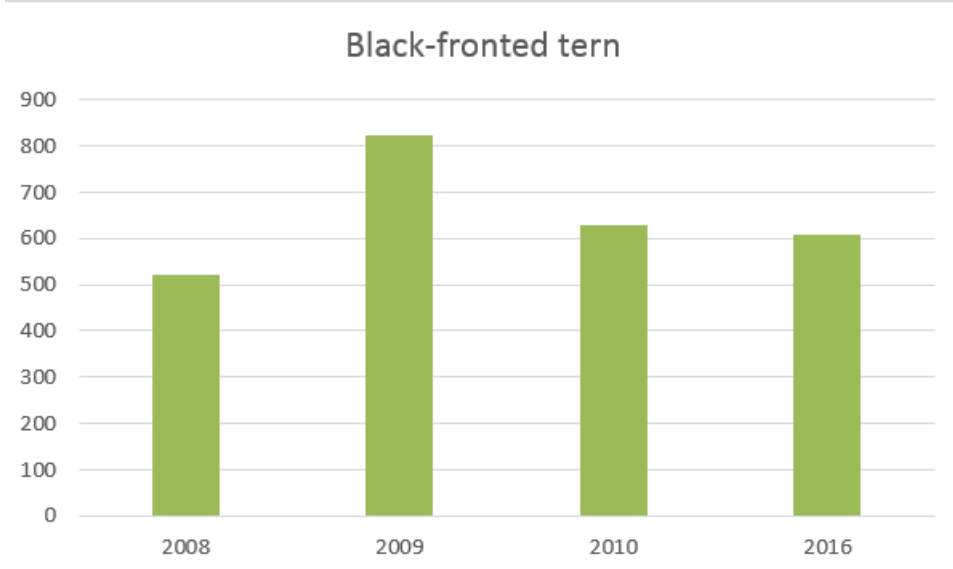
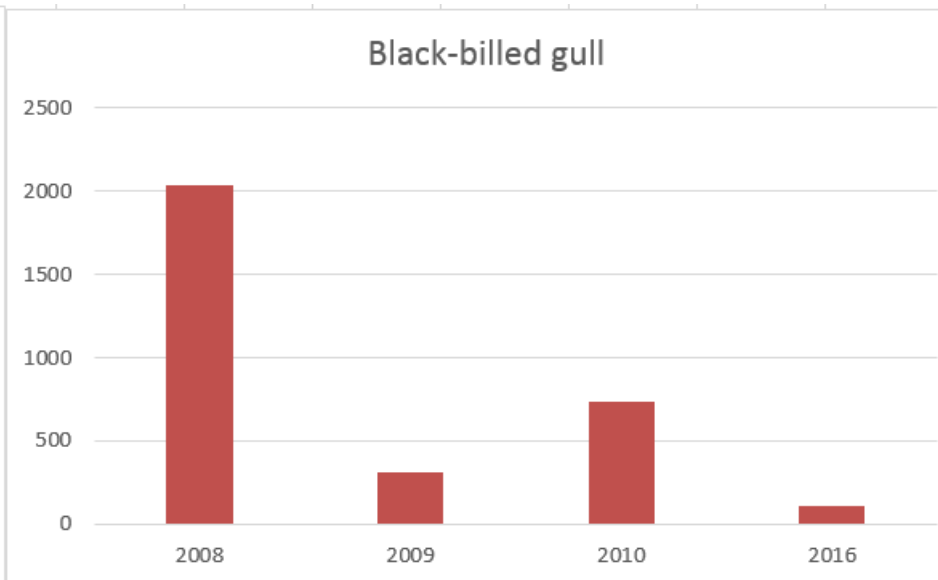
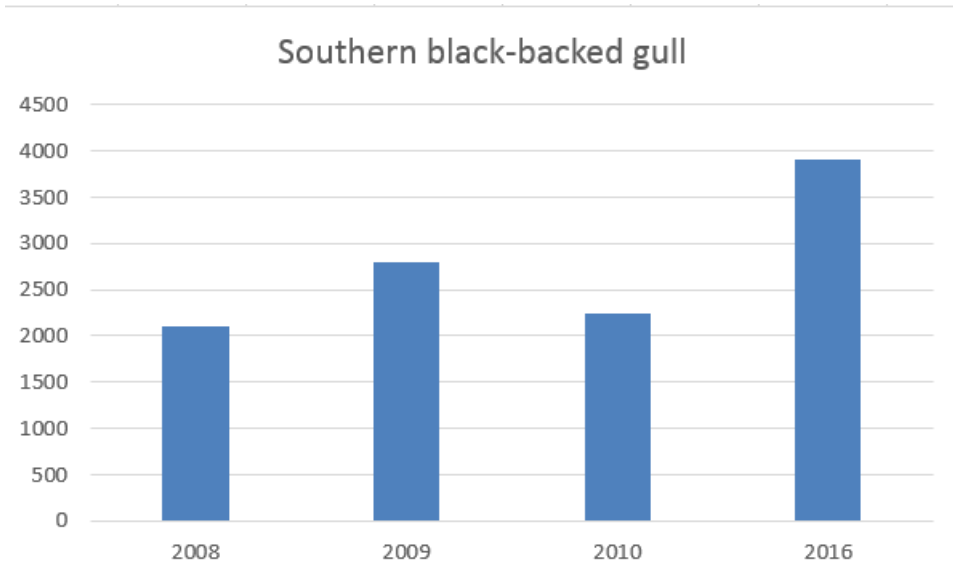
Waiau River at Marble Point



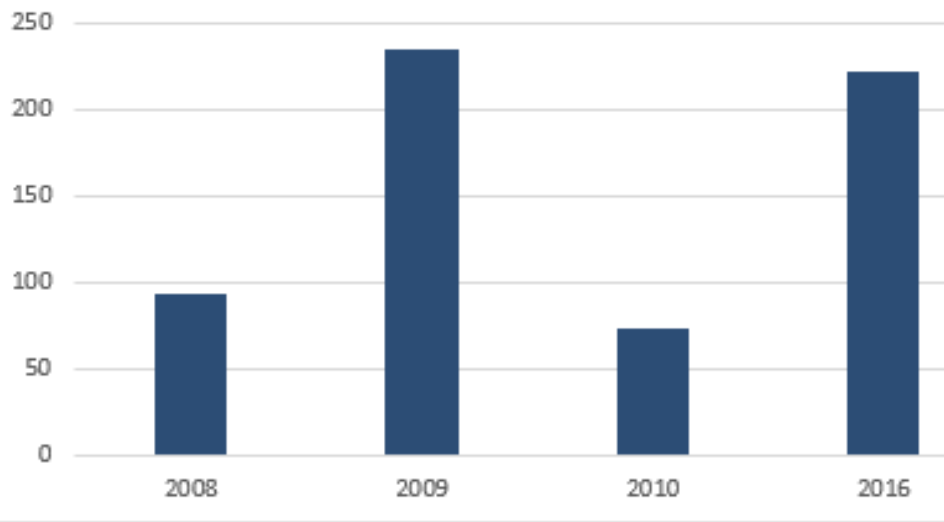
Appendix 3: Total river counts of bird species 2008, 09, 10 and 2016
(Species ordered from highest to lowest count average across all years).

Species	2008	2009	2010	2016
Southern black-backed gull	2,108	2,796	2,245	3,904
Black-billed gull	2,035	307	734	109
Black-fronted tern	520	823	629	608
Banded dotterel	451	531	610	573
Canada goose	332	317	291	263
Spur-winged plover	211	162	520	92
Pied stilt	93	235	73	222
SIPO	144	183	149	145
Mallard Duck Spp.	137	71	63	66
Paradise shelduck	80	85	66	61
White-fronted tern	66	80	42	16
Black shag	68	13	31	5
Pied shag	15	18	21	6
Wrybill	11	17	15	16
Red-billed gull	17	4	28	10
White-faced heron	8	6	21	15
Pipit	3	11	9	8
Scaup	14	13	0	0
Harrier	11	7	0	8
Variable oystercatcher	4	6	4	5
Kingfisher	6	3	0	7
Black swan	1	8	0	6
Caspian Tern	6	1	1	6
Little shag	5	1	1	1
Quail	0	0	0	7
Welcome swallow	1	0	0	5
Feral pigeon	0	0	0	4
Black-fronted dotterel	0	0	0	2
Grey duck	0	0	0	2
Pukeko	1	0	0	0
Black swan	0	0	0	1
Falcon	0	0	0	1
Royal spoonbill	0	1	0	0
Skua	0	1	0	0
Common tern	0	0	0	0
Feral goose	0	0	0	0
NZ shoveler	0	0	0	0
Turnstones	0	0	0	0
White-winged black tern	0	0	0	0
Total birds	6,348	5,700	5,553	6,174

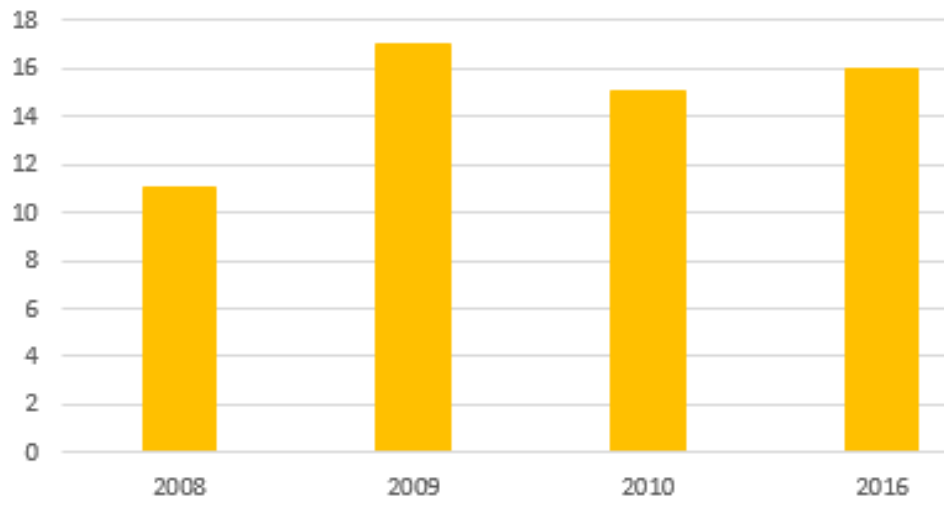
Appendix 4: Counts of seven river bird species during 2008, 2009, 2010 and 2016 surveys.



Pied stilt



Wrybill



South Island Oyster Catcher

