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Bird survey of part of the Waimakariri River  
undertaken on 30 October 2007  
in relation to resource consent CRC071043

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Survey carried out for:

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Canterbury Regional Council  
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Survey carried out by:

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# 1 Introduction

Southern Screenworks Ltd holds a resource consent (CRC071043) to extract gravel and sand from the bed of the lower Waimakariri River in the vicinity of Weedons Ross Road. The consent applies to about 3.1 km of riverbed between grid references NZMS 260 M35: 5806 4992 and M35: 6115 5019. Southern Screenworks Ltd wishes to extract gravel and sand from the area under this consent, starting on or about 05 November 2007.

Condition 18 (a) of the consent requires that where excavation is proposed between 01 September and 01 February, a qualified independent person inspects the proposed area of works no earlier than eight working days before the works are carried out, and locates any breeding sites of birds listed in Appendix A of the consent. These “listed birds” are as follows:

Cormorant/shag colonies	Black stilt
Australasian bittern	Banded dotterel
Paradise shelduck	Black-fronted dotterel
Grey duck	Wrybill
Grey teal	Spur-winged plover
New Zealand shoveler	Red-billed gull
New Zealand scaup	Black-billed gull
Spotless crane	White-winged black tern
Marsh crane	Black-fronted tern
South Island pied oystercatcher	Caspian tern
Pied stilt	White-fronted tern

Condition 18 (b) requires that the qualified independent person prepares a written report identifying locations of breeding or nesting birds of these species, and provides copies to the consent holder and the Canterbury Regional Council. This report is produced to satisfy that requirement.

Condition 17 of the consent requires that excavation shall not occur within 100 m of birds that are nesting or rearing young.

## 2 Methods

At the request of Brett Swain of Southern Screenworks, I surveyed two parts of the consent area on 30 October 2007. Conditions for the survey were fine and warm, with a variable north-westerly wind.

The proposed extraction zones are as follows:

- (a) North Bank – about 1 km of riverbed at least 50 m out from the bank on the northern side of the main channel near groyne 16, between NZMS 260 M35: 6012 5049 and 6115 5045;
- (b) South Bank – about 400 m of riverbed at least 100 m out from the bank on the southern side of the main channel between M35: 6062 4985 and 6097 4972.

Upstream and downstream limits of these areas were identified from GPS readings, and the two sites (plus buffer zones of about 100 m at either end of each) were searched on foot.

The locations of listed species were recorded by GPS. Where circumstances suggested that birds could be breeding, they were watched from a distant concealed position to determine whether they were nesting.

The survey was carried out by JE Dowding. In fulfilment of condition 18 (c) of the consent, the surveyor's qualifications and experience are outlined in Appendix 1 of this report.

## 3 Results

### 3.1 North Bank

The 15 bird species recorded within this area are listed in Table 1.

Table 1 Bird species recorded in the North Bank part of the Waimakariri River consent area on 30 October 2007. + indicates a species listed in Appendix A of the consent

Species	Listed?
Canada goose ( <i>Branta canadensis</i> )	
Paradise shelduck ( <i>Tadorna variegata</i> )	+
Australasian harrier ( <i>Circus approximans</i> )	
Southern black-backed gull ( <i>Larus dominicanus</i> )	
Black-billed gull ( <i>Larus bulleri</i> )	+
Black-fronted tern ( <i>Sterna albobriata</i> )	+
Shining cuckoo ( <i>Chrysococcyx lucidus</i> )	
Skylark ( <i>Alauda arvensis</i> )	
Welcome swallow ( <i>Hirundo tahitica</i> )	
Blackbird ( <i>Turdus merula</i> )	
Grey warbler ( <i>Gerygone igata</i> )	
Silvereye ( <i>Zosterops lateralis</i> )	
Yellowhammer ( <i>Emberiza citrinella</i> )	
Chaffinch ( <i>Fringilla coelebs</i> )	
Redpoll ( <i>Carduelis flammea</i> )	

Sightings of listed bird species within the North Bank area were as follows:

#### Paradise shelduck

A pair of shelducks flew across the river from north-west to south-east at about 6080 E. They did not land in the riverbed.

#### Black-billed gull

Three birds flew upstream over the main channel at about 6085 5044. They continued upstream and did not land in the proposed extraction area.

#### Black-fronted tern

Black-fronted terns were seen at three locations within the consent area. One bird was flying upstream over the main channel at 6031 5049, one was seen foraging over a side channel at 6105 5043, and two were seen flying high across the river over the downstream buffer zone at about 6117 E. None of these birds were seen on the ground at any time and there was no evidence of breeding within the consent area in any of these cases.

### 3.2 South Bank

The 10 bird species recorded within this area are listed in Table 2.

Table 2 Bird species recorded in the South Bank part of the Waimakariri River consent area on 30 October 2007. + indicates a species listed in Appendix A of the consent

Species	Listed?
Banded dotterel ( <i>Charadrius bicinctus</i> )	+
Wrybill ( <i>Anarhynchus frontalis</i> )	+
Southern black-backed gull ( <i>Larus dominicanus</i> )	
Black-billed gull ( <i>Larus bulleri</i> )	+
Black-fronted tern ( <i>Sterna albobriata</i> )	+
Skylark ( <i>Alauda arvensis</i> )	
Welcome swallow ( <i>Hirundo tahitica</i> )	
Yellowhammer ( <i>Emberiza citrinella</i> )	
Chaffinch ( <i>Fringilla coelebs</i> )	
Starling ( <i>Sturnus vulgaris</i> )	

Sightings of listed bird species within the South Bank area were as follows:

#### Banded dotterel

A single female was found roosting at 6073 4980. She was watched from a distance, but there was no sign that she was nesting.

#### Wrybill

A female wrybill was seen displaying and then returning to a 2-egg nest at 60814 49712. This nest was located about 15 m from the proposed access route into the extraction area. Steve Hales of Southern Screenworks was shown the nest; he and I then marked a new road that skirts the nest to the east and north, and keeps at least 100 m from it. Distances from the nest were determined by GPS.

#### Black-billed gull

Two birds were seen flying low upstream at 6090 4975. They did not land within the proposed extraction area.

#### Black-fronted tern

Three birds were seen flying upstream over a shallow channel at 6085 4992. There was no evidence of breeding within the consent area, and these birds probably came from a nesting colony of at least 40 birds that has established about 500-600 m downstream of the eastern boundary of the consent area.

## 4 Discussion

Five listed species were recorded within the proposed extraction areas. One of them (a wrybill) was nesting within the South Bank area, and close to the proposed access route. A new access road was marked (with the consent holder); this road will eliminate activities within 100 m of the nest, as required by condition 17 of the consent. As I walked the new road after marking, the wrybill remained on her nest, suggesting that disturbance from the proposed activities will be minimal.

## 5 Conclusion

On 30 October 2007, no listed bird species appeared to be nesting or rearing young within the proposed North Bank extraction zone identified in section 2 above. A wrybill nest was present in the South Bank area. In fulfilment of condition 18 (d) of the consent, the consent holder has been shown the exact location of this nest.

With respect to conditions 17 and 18 of the consent, there appears to be no reason why extraction should not be allowed to proceed, as long as the newly-marked route is used for access into the South Bank area.

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## Appendix 1

### **Surveyor's qualifications and experience**

The survey reported here was carried out by John Dowding. I have a PhD in Biological Sciences and more than 20 years of experience surveying and monitoring New Zealand birds, particularly riverbed and coastal species.

I have undertaken detailed research on a number of New Zealand shorebirds, including wrybills, New Zealand dotterels, shore plovers and oystercatchers. Much of this research has included locating nests and chicks and monitoring of breeding success. The results of this research have been published in about 20 papers in scientific journals and in more than 120 reports, popular articles, statements of evidence, and conference proceedings.

I have provided evidence to planning hearings and Environment Court hearings, dealing primarily with potential impacts of a variety of activities and developments on threatened riverbed and coastal birds. I have undertaken more than 25 bird surveys in Canterbury riverbeds in relation to gravel-extraction consents during the past four years.

I have carried out a wide range of research, management and consultancy contracts, mainly for the Department of Conservation and regional councils. I am science adviser to two of DOC's species recovery groups and a member of the Department's expert group that assesses the threat classifications of New Zealand birds.

I am a member of the Ornithological Society of New Zealand, the New Zealand Ecological Society, the Royal Australasian Ornithologists' Union, and the Australasian Wader Study Group.