

**BEFORE THE CANTERBURY REGIONAL COUNCIL**

---

***IN THE MATTER OF:***    the Resource Management Act  
1991

**AND**

***IN THE MATTER OF:***    a submission on the Proposed  
Canterbury Land and Water  
Regional Plan

---

**REBUTTAL EVIDENCE OF NICHOLAS REX DUNN  
FOR DIRECTOR-GENERAL OF CONSERVATION**

**Dated 22 May 2013**

---

**Director General of Conservation**

**Private Bag 4715,**

**Christchurch 8140**

**Tel: (03) 371 3700 Counsel: Tara Allardyce**

## **REBUTTAL EVIDENCE OF NICHOLAS REX DUNN**

### **1. Introduction**

1. My full name is Nicholas Rex Dunn. I have prepared a brief of evidence on behalf of the Director-General of Conservation on native fish.
2. In this rebuttal evidence I rebut matters raised in the evidence of Mr Bryce from Rangitata Diversion Race Management Limited, and Ms Hall from Ashburton District Council

#### **1.1 Approach to Rebuttal evidence**

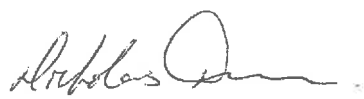
3. The following issues remain in contention in the Ashburton Catchment:
  - Ashburton District Council stockwater race allocation.

#### **1.2 Ashburton District Council stockwater race allocations**

4. I have read the evidence of Mr Bryce and Ms Hall on the management of the Ashburton stock race system. I have also further discussed the implications of this approach with Mr FAMILTON, who has rebutted the evidence of Mr Bryce.
5. I particularly note the paragraphs 8.1-8.13 of Mr Bryce's evidence. I have particular concerns with the proposed rule 13.5.5 and Policy 13.4.1 and their implications for the populations of Canterbury mudfish (*Neochanna burrowsius*) in the Ashburton stockwater network.
6. Canterbury mudfish are currently classified as Nationally Critical under the Department of Conservation's threat ranking system. This is the highest threat ranking for freshwater fish. The current distribution of Canterbury mudfish in the Ashburton and Hinds river catchments and predicted distribution are illustrated in Maps 1 and 2 respectively. The Mid Canterbury Plains stockwater network, encompassing the Ashburton stockwater race network is listed as a key mudfish

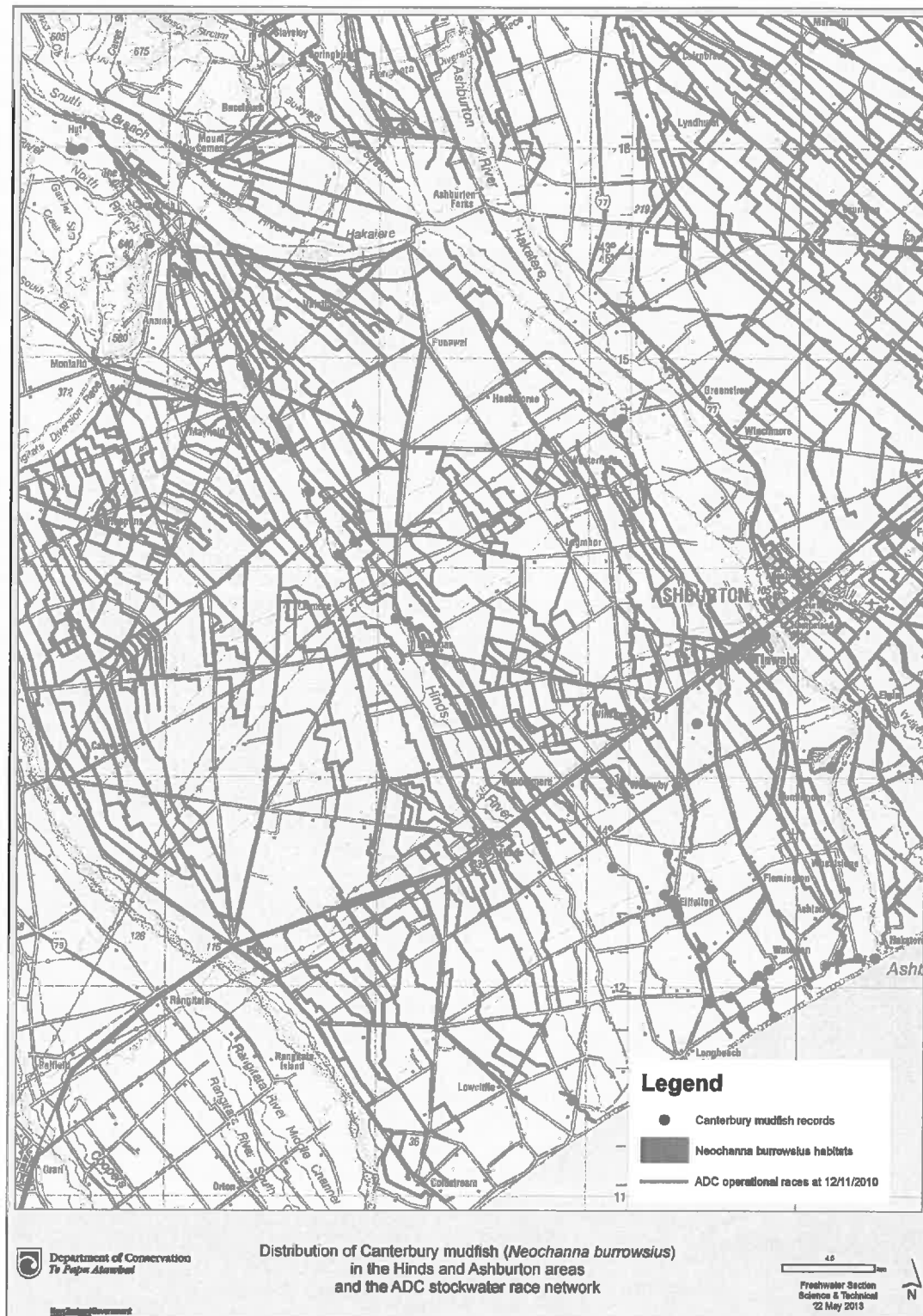
site, with the descriptor that it is unusual habitat, in the Department of Conservation's New Zealand mudfish (*Neochanna* spp.) recovery plan.

7. Historically Canterbury mudfish were present in the extensive wetland complex in the Ashburton – Hinds area. This area has now been extensively modified by agriculture and drainage. The stockwater race network has, and continues to provide habitat for Canterbury mudfish in the absence of other surface water bodies. Ten Canterbury mudfish habitat areas are known to remain in the Ashburton, Hinds, Longbeach area (Map 1).
8. I am not aware of recent surveys (in the last five years) of ecological values of the stockwater races. Should such surveys occur, they may find Canterbury mudfish in other areas, as suitable habitat likely exists elsewhere in these catchments (Map 2).
9. Should the stockwater race network be closed it is possible to salvage, from remaining habitats, Canterbury mudfish and other aquatic life, such as freshwater mussels, freshwater crayfish, and aquatic plants. An example of this occurred at the Synlait Waitai Farm at Waterton. In this situation Canterbury mudfish habitat was created in an area of a paddock after the stockwater race they were in was closed to allow passage of a centre pivot irrigator.
10. Salvage operations including their planning and preparation phase, can take an extended period of time, and should not be considered a simple task.
11. This single relocated habitat required 18 months to be developed and to naturalise, that is to become an aquatic ecosystem capable of sustaining Canterbury mudfish at all life stages. Thus, relocating Canterbury mudfish and their habitat at multiple sites will take a number of years
12. For the reasons given in paragraphs 10 and 11 above, I suggest that the stepped approach suggested by Ms Hall from Ashburton District Council is supported

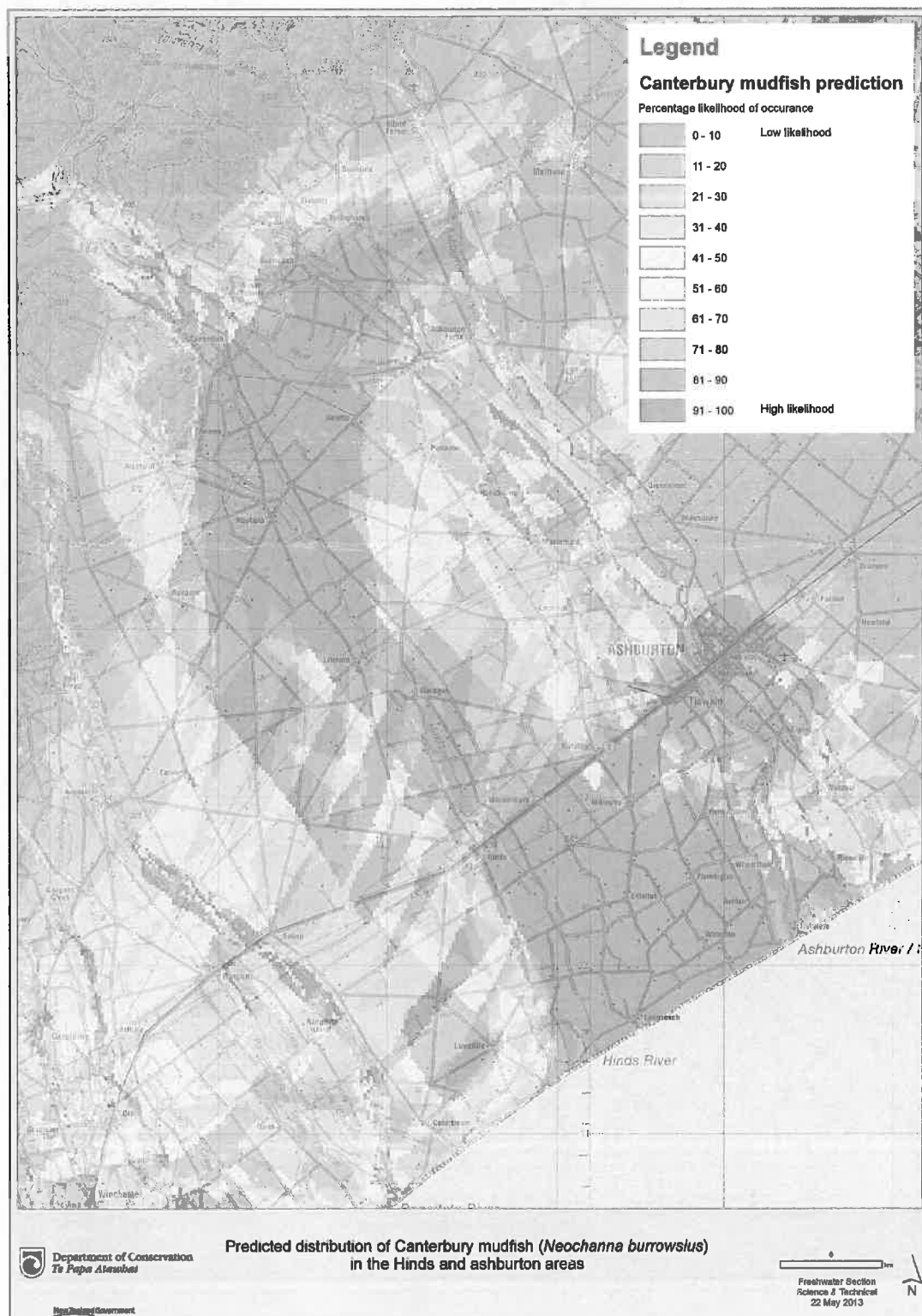
A handwritten signature in black ink, appearing to read 'Nicholas Dunn', with a stylized flourish at the end.

Nicholas Dunn  
Freshwater Science Advisor

22 May 2013



Map 1. Distribution of Canterbury mudfish habitats and records in the Hinds – Ashburton area.



Map 2. Predicted distribution of Canterbury mudfish in the Hinds – Ashburton area. Red coloured areas there is the highest probability of occurrence.