

Date: 14 December 2007
To: Leo Fietje, Principal Consents Advisor, Environment Canterbury
From: Walter Lewthwaite, Environmental Engineer, URS
Subject: Central Plains Water Enhancement Scheme
S92 request regarding mudfish mitigations

In your letter of 2 November 2007 to the Central Plains Water Trust you asked for further information about mitigation measures for potential mudfish effects. Your comment was:

The possibility of an effect on mudfish populations has been highlighted in both Kingett Mitchell reports (December 2006 and March 2007), however no mitigation measures have been proposed. Please provide mitigation to reduce the effect of dam formation on the extensive mudfish populations of the Waianiwaniwa catchment.

I trust the comments below provide sufficient information for your purposes.

Background

The scheme's potential impact on mudfish has been addressed in previous reports, as noted in your question.

CPW has been advised that the main known populations of mudfish in the central plains area are in the Waianiwaniwa Valley and in the Hororata catchment in a reach for some 10 km downstream from Hororata township.

It is accepted by CPW that flooding of the Waianiwaniwa Valley will substantially reduce the mudfish habitat and population in that area, but the scheme will not directly impact the habitat in the Hororata catchment and is unlikely to affect that population.

Proposed monitoring and mitigation

By way of mitigation CPW proposes to implement a range of works in the Waianiwaniwa Valley on land that it expects to purchase, and proposes to encourage and offer to fund other works on adjacent land. In addition it proposes to encourage offset mitigation by enhancement of habitat in the Hororata catchment. Where suitable land is not included within areas sought for designation the scheme will seek to purchase further land, establish covenants or prepare agreements with shareholders to give it the right to do the proposed works. Specific proposals are to:

1. Create new protected mudfish habitat in the Waianiwaniwa Valley and ensure the genetic stock from the valley is retained (a range of sites could be considered, depending on negotiations with landowners, and final design level of the reservoir),
2. Provide a captive management facility for holding Waianiwaniwa Valley mudfish while wetlands are created, for breeding additional Canterbury mudfish for translocation, and for retaining Canterbury mudfish stocks in severe drought seasons,
3. Survey previously unsurveyed spring and wetland habitats of the Hororata River catchment to provide up-to-date distribution and abundance data for the central plains area,

4. Undertake monitoring of key mudfish populations and other mudfish populations in the central plains area,
5. Provide fencing and management of riparian habitats around mudfish sites in the Hororata River catchment,
6. Provide enhancement and an increase in size of wetland habitat in the Hororata River catchment,
7. Seek legal protection of mudfish habitat by use of covenants,
8. Manage predatory fish stock in the Hororata and Waianiwaniwa Rivers and associated springs, wetlands and drains with Canterbury mudfish,
9. Provide additional pest fish incursion monitoring in the central plains region,
10. Provide revegetation of riparian zones in the Hororata River area with indigenous vegetation and by doing so contribute to the creation of an indigenous vegetation corridor across this region of the Canterbury Plain.