

SUBJECT MATTER: Braided Rivers – Environment Canterbury regional funding – annual report (combined)	
REPORT: Biodiversity and Ecosystem Health Working Group of the Regional Committee CWMS	DATE OF MEETING: September 2016
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PURPOSE (NO DECISION REQUIRED)

To provide an update on the progress of the Braided Rivers regional funding and programmes

1. **Regional Braided River Initiative Program (BRR)**
2. **Regional CWMS Immediate Steps Braided River Flagship Program (BRFS)**
3. **Outline other projects around the region**
4. **Outline projects that have been identified but are currently unfunded**

Notes on the regional braided rivers enhancement funding

Both the CWMS Regional Committee Braided River Flagship programme (BRFS) (\$108,000 per year) and the Environment Canterbury ‘Regional Braided River Initiatives’ (BRR) funding (\$135,000 per year) are aimed at helping to achieve CWMS Braided River goals and targets (especially braided river ecosystem health and breeding bird habitat). This paper reports on both programmes.

The BRFS is focused on the Upper Rakaia and Rangitata Rivers - regionally important rivers with exceptionally high ecological values plus local community and agency support. The BRR programme includes three large scale projects across the region (Clarence, Rangitata, and Lower Waitaki) and three smaller investigations to inform future management. (See appendix I for more details of how project were identified.)

All of the projects and programmes are undertaken in collaboration and partnership with other organisations and agencies and would not be possible without their support and leadership. These include (in no particular order): local landcare and rivercare groups, CWMS zone committees, local runholders and landowners, DOC, Fish and Game, LINZ, local TAs, and contractors (who often donate extra time and resources).

At the end of this paper is a list of other braided rivers projects across the region and additional projects that are currently unfunded but would be useful to better manage the braided river ecosystems.

Clarence River habitat enhance for breeding black-fronted terns

Background: The aim of this project is to improve breeding habitat for threatened braided river birds in the upper Clarence River by creating islands, removing weeds, and controlling pest animals on selected islands. The key target is black-fronted tern breeding habitat as this species only breeds in eastern south island braided rivers. The population is declining on almost all rivers where it is found and its conservation status is ‘nationally endangered’. The

project also aims to increase understanding of how to manage habitat for this species (adaptive management). Managed by the Department of Conservation, this project is co-funded by the Kaikōura Zone Committee.

Context: There are two other projects which contribute to the wider catchment ecosystem enhance programme funded in part by the Kaikōura Zone Committee: 1) woody weed control and 2) black-billed gull colony management (nationally endangered, mainly breeds in braided rivers). Additional complimentary projects are listed below.

A special Clarence newsletter has been produced by the Kaikōura zone team which has a map and overview of the catchment and various programmes underway (see below).

Better islands to help endangered bird

The formation of better breeding habitats is just one of a series of actions being taken to protect the Clarence/Waiarau-toa River's black-fronted tern population.

The black-fronted tern is only found in New Zealand and only breeds in braided river beds like the Clarence/Waiarau-toa River. Black-fronted terns are nationally-endangered, only two steps back from extinction on the New Zealand Threat Classification System.

Monitoring of the Clarence/Waiarau-toa River black-fronted tern colonies showed predators such as hedgehogs, cats, weasels, stoats and possums destroying nests and killing fledglings. Thick broom also pushed breeding terns off the islands and onto the river banks where predators hide and hunt.

The Kaikōura Water Zone Committee, Environment Canterbury and the Department of Conservation have invested in a five-year predator control and protection programme to help increase the local black-fronted tern population.

In March 2016, sections of a river channel were deepened to help water flow more freely around breeding islands.

It is hoped the better water flows would prevent predators reaching the islands and destroying tern nests. The islands will also be maintained weed-free and an extensive network of traps has been laid in the vicinity of the colonies to control predators.

 This publication showcases some of the work done to protect the Clarence/Waiarau-toa River.



A five-year predator control programme is being undertaken to help black-fronted tern chicks, like this one, survive in the wild. Photo: Jessica Hill

Summary of last season

Hand clearing of weeds and predator trapping was undertaken last season. A large number of predators were captured. Mechanical in-river work was planned but had to be deferred.

The hatching success from the first season of the managed and unmanaged colonies was similar (about 30% for both). The fledging success (number of chicks that survived to flying) at the managed colonies was a slightly higher than the unmanaged colonies – but both were low.

Part of the reason for the low success rates may have been that only some of the black-fronted terns used the enhanced islands for nesting. In addition there was exceptionally low rainfall and river flows in the Clarence (the lowest since records began in 1905). This meant mammalian predators had easier access to the islands as was demonstrated when a cat reached one of the colonies killing a large number of chicks that were close to fledging.

Mechanical excavation and scraping is expected to further improve the habitat for next season by increasing the depth of the channels around the islands and making the islands more resistant to flooding. Finally, the effectiveness of the traps is expected to further improve with the 'weathering in' of the traps over time.