



**LOWER WAITAKI RIVER**  
Management Society Incorporated

# **Waitaki River South Bank**

## **Canterbury Mudfish**



**ANNUAL PROJECT REPORT**

**March 2017**

## **COORDINATOR OVERVIEW:**

The first year Lower Waitaki River Management Society project of managing and promoting the southernmost population of Canterbury Mudfish is now complete. The Society is very grateful for the financial support that has been provided by Environment Canterbury and the Department of Conservation, and we believe that the achievements that have been made over the last 15 months represents an excellent beginning in the journey of raising public awareness about this critically threatened freshwater fish and the habitat that is essential for its survival.

The following report details the most significant achievements that have been made over the course of the project so far, with the final page outlining the proposed schedule for the coming year.

Thank you to the many volunteers who have contributed to the project so far; your support has been essential in the process of making the story of the mudfish memorable for the school children who participate in the project. Special thanks to Debbie Eddington (ECan Youth Engagement Officer) for your patience and enthusiasm.

## **DECEMBER 2015: PSP SEED FUNDING APPLICATION SUCCESSFUL**

A successful application was made for seed funding to the Ministry for Business, Innovation and Employment's "Science into action" project.

The seed funding was used to consult on water quality tools on behalf of the society, and for making a larger application to gain funding to purchase those appropriate tools.

## **JANUARY 2016: PRE-PLANTING WEED CONTROL.**

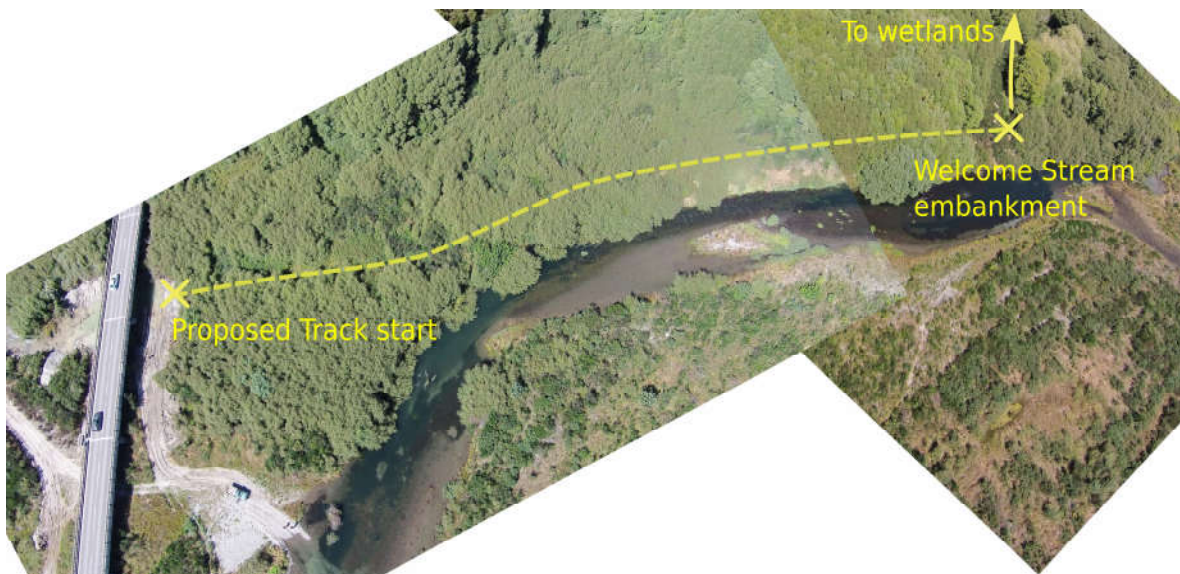
In January contractors carried weed control work in the fenced area of the Waitaki Bridge Wetlands sufficient to make space for the for the upcoming fieldtrip for Papakaio School on the 4th of April.





## FEBRUARY 2016: PUBLIC ACCESS TO GUS'S POND PROPOSED

Discussion with Mr Morton has yielded a potential alternative access route to the Waitaki wetland mudfish population. The proposed track will span from the parking area under the SH1 bridge to the embankment ant the confluence of the Waitaki River and Welcome Stream . Work to create this track is planned to begin in 2017.



## **FEBRUARY 2016: FORTHEWAITAKI.COM BLOG LAUNCHED**

A new web log ("blog") for the society was created to publicise the activities of the Society.



## **MARCH 2016: PAPA KAIO SCHOOL OUTREACH**

The first of the school outreach programs was held on Thursday (10<sup>th</sup>) and Friday (11<sup>th</sup>) of March at Papakaio School. Debbie Eddington (Ecan) presented an engaging lesson about the importance of habitat for species' survival, what makes good mudfish habitat, and how to spot mudfish habitat in their own back yards.





## **APRIL 2016: PAPAKAIO SCHOOL FIELD TRIP**

On the 4th of April 2016 the Lower Waitaki River Management Society hosted a highly successful field trip for the student of Papakaio School. The day was a huge success for the school – a teacher has informed me that several of the senior students specifically mentioned the field trip as the most enjoyable activity of the term.





## **MAY 2016: FIRST WWF WAITAKI WETLAND PLANTING DAY**

Youthtown Oamaru came along to Gus's Pond to run a tree planting event for 30 students on their Youth Leadership day on the 27<sup>th</sup> May. The day was very successful, with over 400 trees planted.





## **MAY 2016: PSP FUNDING APPLICATION SUCCESSFUL**

The LWRMS was successful in its application for funding to purchase water quality testing equipment from the Ministry for Business, Innovation and Employment's "Participatory Science Platform". This funding allows the LWRMS to measure several parameters of water quality at the mudfish sites and build up a picture of environmental condition. This data will allow us to better understand the seasonal dynamics of the mudfish habitat.

## **JUNE 2016: WAITAKI VALLEY SCHOOL VISIT**

Debbie Eddington (Youth Engagement Educator for Ecan), once again came along to provide an entertaining and educational presentation on Canterbury Mudfish, this time to the students of Waitaki Valley School. This was an excellent and busy day in which we managed to get through the entire school of 116 students. We we're very pleased with the intelligent questions and focussed attention of all the students, and look forward to our next opportunity to collaborate with them. Special thanks to the Principal Deidre Senior and Deputy Principal Pip Jensen for their help with organising this event, and to Alex Ghaemeghamy, a trainee teacher from Dunedin who came along to help.



## **JUNE 2016: SECOND WWF TREE PLANTING, WAITAKI RIVER**

LWRMS committee members planted a further 400 trees at the start of the walking track to Welcome Stream.



## **JUNE 2016: WATER QUALITY MONITORING, ST KEVIN'S COLLEGE**

The first two sampling events for our newly funded water quality monitoring program were held in June. For the following two months senior students from St Kevin's College collected and analysed fortnightly water samples from mudfish sites on the south bank of the Waitaki River with help from Dennis Veal from Lincoln University's Waterwatch program. Parameters measured include nitrate, phosphate, conductivity, pH and dissolved oxygen.





## **JULY 2017: WQ EQUIPMENT SALVAGED**

We had a lucky find with a recent donation of scientific equipment – specifically 5 old spectrophotometers which can be used to measure the concentration of compounds in solution, such as nitrates, phosphates, heavy metals etc. Unfortunately only one was servicable, but this has been donated to the St Kevin's College Senior science laboratory.



## **JULY 2016: NEW POPULATION FOUND**

Gee-minnow traps set as part of the St Kevin's College project in a pond nearby to "Gus's pond" yielded some mudfish – increasing the known populations on the South Bank of the Waitaki River from four to five.

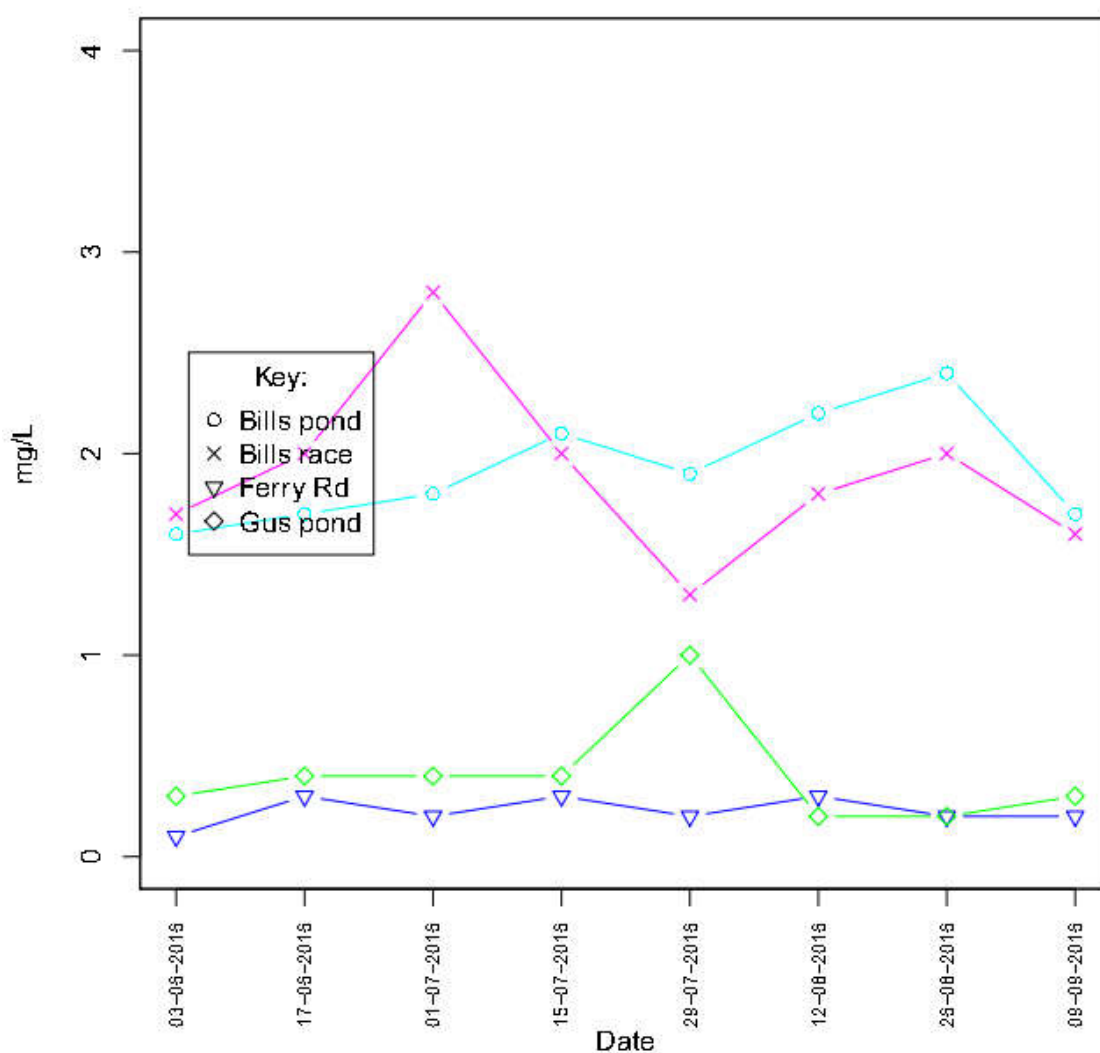


## SEPTEMBER 2016: ST KEVIN'S COLLEGE PROJECT COMPLETE

The practical field component of this project was carried out with St Kevin's College between June and September 2016. Over an eight week period fortnightly samples we collected from four sites, and analysed them in the school science lab on portable spectrometry equipment.

As well as providing the project with useful information about the chemical and physical parameters of the mudfrish habitat, this data was used by the students to complete Achievement Standard 91387: Carry out an investigation in chemistry involving quantitative analysis. Part of the dataset is displayed below:

**Mudfish Sites: Nitrate N (Hach DR890)**





## **MARCH 2017: SPRAY CONTRACTORS AT GUS'S AND BILL'S POND**

In the first major project of 2017, two teams of contractors descended on two of the mudfish sites to control broom, gorse and blackberry in preparation for the Ara institute track building project to begin in May 2017 with students from Waitaki Boys High School and Waitaki Girls High School.



# FIELD DAYS AND KEY DATES 2017

*Proposed dates (pending confirmation)*

<b>January</b>	
<b>February</b>	
<b>March</b>	- Spray contractors at Gus's and Bill's Pond (4 days)
<b>April</b>	- Track cutting contractors at Gus's and Bill's Pond (5 days)
<b>May</b>	-First week of term 2: Restart the water quality project with St Kevin's College (2 months)  - First week of term 2: Start a new project, working in collaboration with Ara institute and Waitaki Boys High School to construct the Welcome Stream walking track (10 weeks)
<b>June</b>	
<b>July</b>	
<b>August</b>	
<b>September</b>	
<b>October</b>	- Glenavy School school visit - Glenavy School field trip to Gus's Pond
<b>November</b>	
<b>December</b>	