



Judges' Report

CATEGORY:

Community Innovation

Linkwater School

INTERVIEWED

Emily Soward, Karen Morrison and school students

DATE

6 December 2024

JUDGES

Tim Newsham, Budyong Hill, Anna Polson

INTRODUCTION

Linkwater School has a role of 45 children ranging from New Entrants to Year 8. The school has a strong emphasis on its place in our community and how it can connect with the community and the local natural environment in a range of ways.

The school has a strong environmental focus being an enviro school since 2008 and recently obtaining their Green Gold status. Parental support and involvement is very strong and supportive of environmental projects.

GENERAL INFORMATION

The Linkwater Catchment group was set up in 2018 as a collaboration between Council and local landowners to provide solutions to improve the water quality in local streams. In 2021 it was suggested that the school become involved in this project and the students were involved in the first native species planting project in 2021.



This year Linkwater School has had a school wide focus on the importance of water, starting with the water cycle and learning about the importance of water to everything on the planet and especially to the local area.

This has been followed by two stream studies during the year, the Murdoch's stream and the Morrison's stream, to carry out water studies of water clarity, water temperature, and investigate the types of creatures that were found that can indicate stream health.

Photo credit Sarah Huntley

They learned a lot about the importance and difference of the type of creatures in the water, including the fact that macro invertebrates with legs indicate a healthier stream than other invertebrates such as worms.

They also gathered data around surrounding land use, erosion, and they set fish traps and looked underwater with bathyscopes to look at the stream bed. With the help of Landcare Trust they collected eDNA to see what species have passed through the water and carried out SHMAK tests to measure the health and wellbeing of the waterways.

The highlight of the investigation was the finding of four long finned tuna which are a threatened species so becoming quite rare.

THE JUDGES WERE IMPRESSED BY



The knowledge and passion of the students was evident, and they had learned a lot of facts about water and the importance of stream care, nutrient run-off, riparian plantings and shading of stream edges.

Since the area is heavily focused on dairy farming, with many children from dairy farming backgrounds, they were learning to understand the importance of responsible dairy management practices, while also learning that dairy farming can be done responsibly if it is done with care of the environment in mind.

This is very positive for the future of dairy farming in this area with the local Catchment Care group and the new generation of farmers putting water care and the environment as an important part of their farming practice.

Photo credit Sarah Huntley

PROBLEMS AND HOW THEY HAVE BEEN TACKLED

- No real or obvious problems were observed.
- The students enjoy the activities and seem to learn a lot from them.

SUMMARY

Linkwater School has a strong relationship with the local farming community, so the teachers and local farmers are working hard to teach the children to know and understand the issues that their industry faces – especially in the public sphere.

It is important that schools based in farming areas understand their local issues and can take steps to do all they can to alleviate the potentially biased views of outside sources and critics.

SUGGESTIONS

- The judges are concerned that the next planting project might be a little large for the school to manage if they are to be expected to maintain the plantings after the planting has been done. Post-planting care is always more challenging than actual planting so a maintenance plan might need to be put in place with some help from outside sources such as family members or members of the catchment group.
- Next year the school will be focussed on planting so it would be good to incorporate another aspect to this such as learning about identification of native trees, heights they grow to, tolerances to drought and flood, whether they are a source of food for birds, medicinal uses, or how to harvest and propagate seed.
- Follow up studies of the eDNA and SHMAK tests in future years would be useful to determine if the water quality is improving with land use changes such as riparian plantings. Could perhaps the older students to do some more in-depth analysis of the impacts of nutrient runoff on the streams they are studying?
- We realise the students aren't making the decisions about the design of riparian strips on the local farms, but they might be in a position to make suggestions if they identify possible improvements that could increase effectiveness.

For example, regarding shading this info is on the Dairy NZ website - *"For north-south flowing streams plant height needs to be at least 80% of the stream width. For east-west flowing streams plant height needs to be at least 150% stream width."*

This could potentially be a problem if they make recommendations that are different from what the farmer has undertaken. Are the students being involved with planning for any future planting? Or rather just being told here is another area that the farmer has decided can be planted.

