

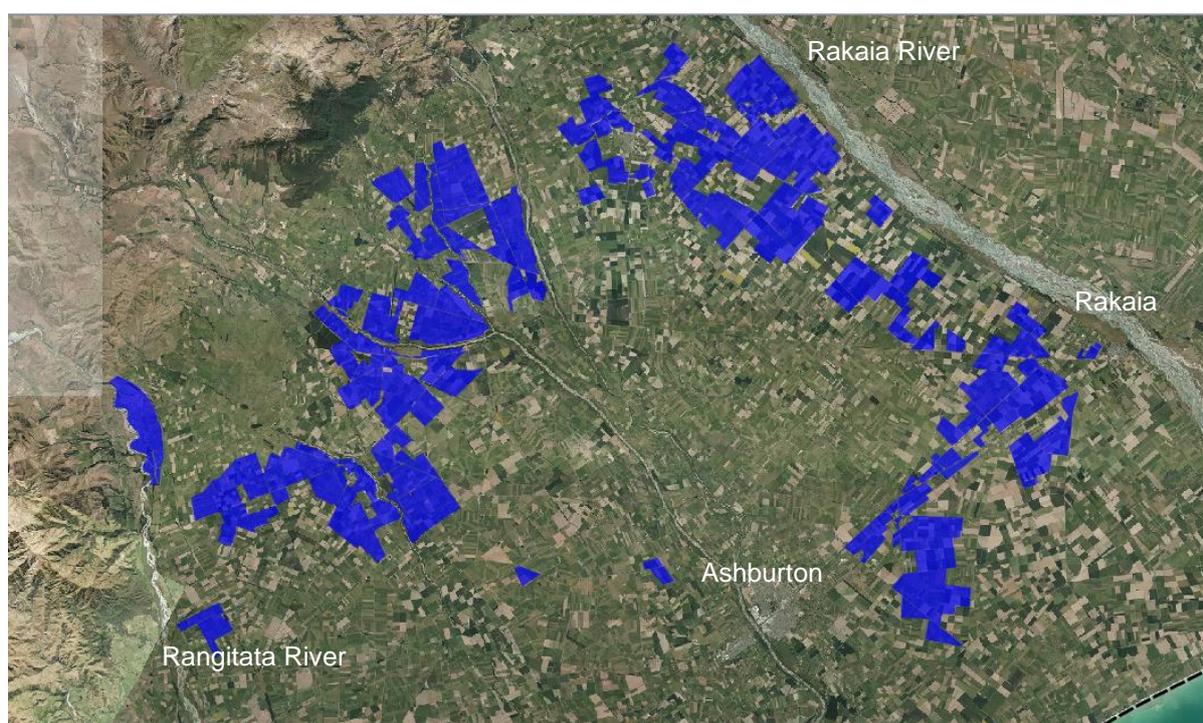
# FEPs in Action – October 2019

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## *BCI Audited Self-Management Case Study*

Barrhill Chertsey Irrigation Limited (BCIL) are a new irrigation scheme located between the Rakaia and Rangitata Rivers in Mid-Canterbury (Figure 1). We started delivering water in 2010, and now provide sufficient water to 130 shareholders to irrigate 23,000 ha on properties covering over 40,000 of land. Our shareholders are a mix of arable, vegetable growers, small seed producers, dairy, dairy support and sheep, beef and deer properties.

*Figure 1: Barrhill-Chertsey Irrigation Limited Command Area*

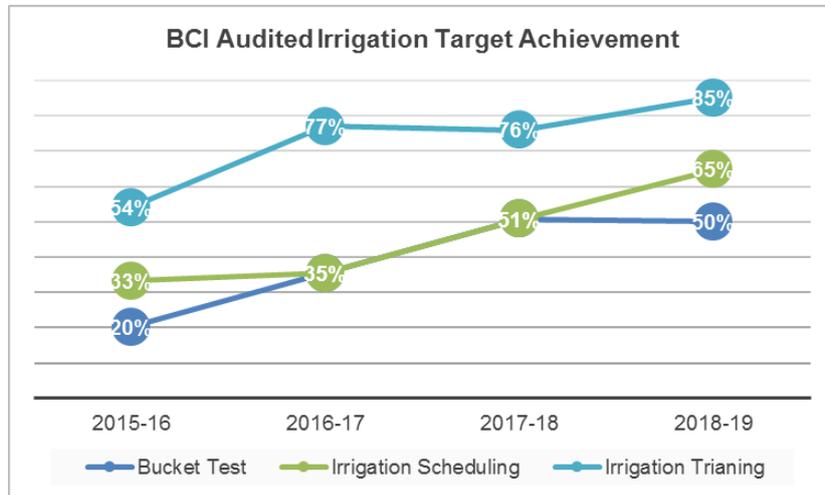


BCIL were issued a resource consent in 2013 to manage the discharge of nutrients from shareholder properties. The resource consent requires the following:

- Development of an Environmental Management Strategy
- A nutrient cap and annual reporting against it
- Farm Environment Plans
- Auditing of the Farm Environment Plans

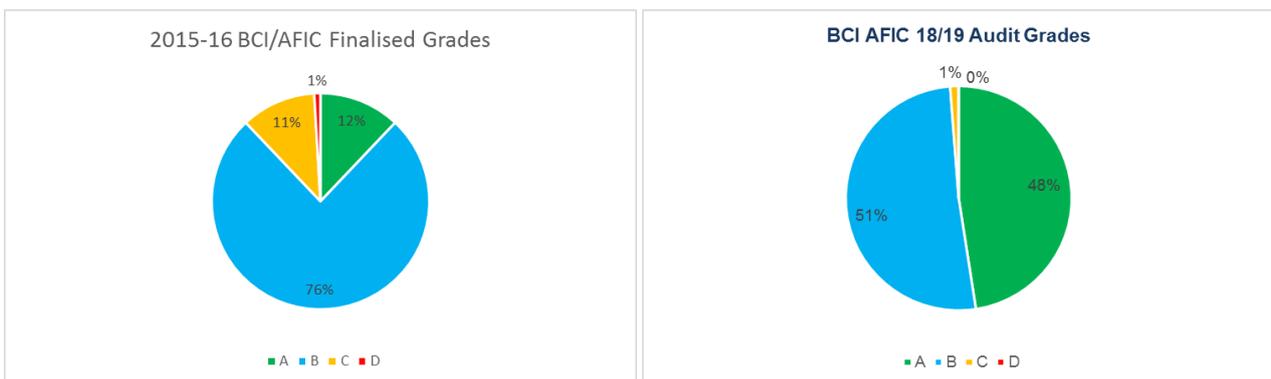
As part of our Environmental Management Strategy (EMS), we not only ensure all shareholders have a Farm Environment Plan (FEP), we also extension services to support their implementation. For instance, we update these farm plans annually, offer a range of targeted workshops to address knowledge gaps and provide support with meeting other areas of Good Management Practice, such as bucket testing.

Through this process we have consistently seen improved uptake of Good Management Practices, particularly in the areas where we have targeted extension services. An example of this is in irrigation management. At the start of this process, most shareholders relied on their own experience when it came to scheduling irrigation. However, through this programme, we have seen a year on year improvement in training, irrigation performance, and the uptake of irrigation scheduling tools.



Nitrogen loss in our area is strongly driven by drainage caused by irrigation, therefore these changes will result in meaningful improvements in irrigation efficiency and reduction in N losses from our shareholders.

We can also see how our programme has improved performance through the auditing process. In our first season of audits, shareholders achieved 12% C or D (“Fail”) grades and 12% A (Good Management Practice). In our most recent audits, 48% of shareholders achieved an A and only 1% a C or D grade, with improvements mostly through the update of better irrigation practice described above.



We found the biggest improvements in grades occurred between the first and second audits, which indicates shareholders were more strongly motivated by wanting to do well in the audits than they were with completing actions in the Farm Environment Plan or farming to their nutrient budget.

Our shareholders tell us they want to be held to account for their actions, not to their Overseer number and strongly prefer the Farm Environment Planning and Auditing process.