

The shape of water

The public mood has turned against giant irrigation schemes, leaving farmers wondering if they are high and dry. **Gerard Hutching reports.**

Greytown farmer Barry Kempton recognises irrigation gets a bad rap.

That's despite a New Zealand Institute of Economic Research estimate that it contributed \$5.4 billion to the economy last year.

Kempton is one of a group of Wairarapa farmers who support the Water Wairarapa project, which is stalled by hostile public opinion and a change in government policy.

"From my point of view, if we have to put up some money, then so be it; without irrigation we're really going to be struggling," says Kempton.

So far Greater Wellington Region Council ratepayers have shelled out \$7 million over the last five years for studies and consultation over building a dam to irrigate 30,000 hectares.

It is a similar story throughout the country. In Hawke's Bay, the regional council spent \$20m planning the scheme to irrigate drought-prone land on the Ruataniwha Plains. In Nelson, the Waimea project has been sunk after councillors voted this week against the \$102m dam.

Since coming to power the coalition Government has put on hold all the irrigation schemes its predecessor helped to fund.

Crown Irrigation Investments (CIL) is being wound down, as is the Irrigation Acceleration Fund. Since 2013 CIL has spent \$136m on a number of schemes, and the former Government had committed to provide \$400m through to the 2020s.

Other than the Wairarapa and Waimea, other projects on the drawing board were Northland, Flaxbourne (Marlborough), Hurunui, South Canterbury, Kurow, Duntroon, Hunter Downs and Manuherikia.

Despite the hold-ups, Irrigation NZ argues that



IrrigationNZ chief executive Andrew Curtis accepts the days of large-scale projects for dairy are over. Groups of farmers will instead build their own systems. JOSEPH JOHNSON/STUFF



Barry Kempton

irrigation will be needed, but for a different purpose than dairy farming.

Chief executive Andrew Curtis accepts the days of large-scale projects for dairy are over. There is little public appetite for schemes that divert water from rivers, build dams on conservation land and result in large-scale pollution.

"We don't think people are against irrigation, it just got tied up with the dairy debate. We're not talking about storage on

rivers any more, but moving to using aquifers where the impacts are minimised."

The new focus is towards horticulture and arable farming. At present, arable land covers 171,248ha of New Zealand and horticulture 126,135ha, compared with 2.6 million ha for dairy and 8.5 million ha for sheep and beef farming.

Curtis says the Government wants to lift that combined arable and horticulture area of 297,383ha to about 500,000ha by 2050.

Already New Zealand has 800,000ha of irrigated land. National had wanted to raise that to 1 million ha before it left office.

Curtis says if the Government wants to succeed in its goal of increasing horticulture and arable, it will still need to irrigate.

"The reality is if that's where you want to take land use, you won't do it without a reliable water supply, but you won't use as much water as dairy. You'll need a little more water up your

sleeve for that dry year."

For all the talk of New Zealand being able to feed the world on plant protein, Curtis says we will never be able to compete against North American arable farmers.

"We'll have to go into niche markets. We need to ask what consumers want and grow foods tailored to their preferences," he says.

"We need to research the emerging food trends, what processing facilities are required and then work out what we're going to grow."

He predicts there will be a move away from large-scale projects towards groups of farmers building water storage systems and sharing.

Councils are also investigating whether there is enough water in deep aquifers to carry farmers through dry summers. The Hawke's Bay Regional Council is now drilling into the Ruataniwha Plains in a search for water.

Greenpeace spokeswoman Gen Toop says the organisation does not have an outright stance against irrigation.

Its main opposition is to large schemes that drive "industrial" dairying.

"When it comes to hort and arable, we still don't have a regulatory framework to protect our rivers and until we have that we need to stop dishing out water consents left, right and centre," Toop says.

A key step will occur this year when the Government announces its national policy on freshwater, which will guide regional and local councils.

But are the benefits of irrigation as high as claimed?

Contrary to the NZIER's estimate of the \$5.4b boost to the economy, the Treasury found eight years ago the cost of irrigation could exceed the benefits, and most of the lift



At a cost of \$450 million, Central Plains Water in mid-Canterbury is probably New Zealand's biggest privately funded infrastructure project. The Crown provided \$70m in loans for the scheme.

came from building the projects.

Kempton, who is in his mid-70s, says he never intended to use irrigation for dairying, and is frustrated at the public's misperception.

"I think the dairy industry is going to have more restrictions put on it, so the water will be used for cropping. People have got the wrong interpretation.

"It will be drip-fed using minimal water. The amount of water used to grow grass to make a litre of milk is a hell of a lot more than to grow a cabbage."

Irrigation is an expensive business – just ask mid-Canterbury farmer Ross Hewson who grows potatoes and onions on his 1700ha, 100 per cent-irrigated property. He also produces seed for export, while ryegrass and wheat are important break crops.

Just to put the 24 pivots and laterals in over a number of years has cost him \$8.5m. On top of that he has to pay for power, water consents and pumps.

Hewson's hooked up to the Barrhill Chertsey irrigation (BCI) scheme, which can be topped up from stored water in Lake



Coleridge when the Rakaia River flows are restricted, but most of his water is pumped from deep bores which draw water from 200 metres below the surface.

The scheme complements the underground supplies to stop them coming under pressure. Water from Barrhill Chertsey is between \$750 to \$1050 per hectare at 4-5mm a day.

Curtis of IrrigationNZ says irrigated crop farm returns are typically between \$5000-\$6000/ha, with farm expenses at 50 to 60 per cent,

“If we do it right, we can live in harmony with our rivers and waterways.”

Ross Hewson, above, with Rochelle on their Mid-Canterbury property

resulting in gross margins of about \$2500-\$3000.

Hewson says irrigation isn't the “big ogre” that people portray it as.

“If we do it right, we can live in harmony with our rivers and waterways. Take BCI for example.

“During dry spells when wells are under pressure and we'd struggle to fully irrigate, we can connect with surface schemes that have adequate supplies. The schemes complement each other – reducing the impact on

NZ land use, by the numbers

171,248ha

arable land

126,135ha

horticulture

2.6 million hectares

dairying

8.5m hectares

sheep and beef

aquifers and helping balance the resource.”

Irrigation is a mainstay of the Ashburton and Timaru economies.

Hewson instances the hybrid carrot seed he grows for Midlands Seed in Ashburton. New Zealand grows 30 per cent of the world's carrot seed every year.

“This is a valuable crop option for an arable farmer – and it is only an option in New Zealand because we have irrigation to support it. There are many flow-

on benefits from this.

“One of them is the large bee business Midlands Seed have built around carrot production. They have built massive new facilities and are now a significant honey exporter.

“I remember someone telling me once that farming these free-draining Lismore soils without irrigation was like being handed 10 life sentences. We simply couldn't farm here if it wasn't for irrigation – we'd be growing marbles or seed potatoes at best,” Hewson says.