

# Freshwater security for now, for the future, for everyone.



Our region's growing communities and thriving economy are closely linked to water.

We live in a bountiful area with sunshine, rich soils and accessible freshwater. We've continued to adapt and develop our water resource, relying on it even more.



## The pressures of demand are outweighing the realities of supply

We now know the volume of freshwater we can access is finite and limited. Climate change and drought, plus an expanding population and growing industry, means that, if left unchecked, the gap between supply and demand will grow year-on-year.

## What are our options?

We can't take more from the environment. To protect the health and wellbeing of our water bodies, the Government's freshwater framework, Te Mana o te Wai sets out how we manage freshwater - prioritising the environment and human health before our other uses for water.

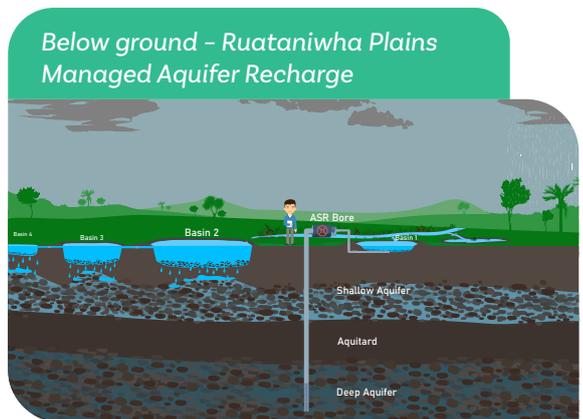


All levers must be pulled. In addition to reducing and conserving our demand for water, we need to investigate the potential to store water when supply is high, for drier months or when demand increases.



## What is Managed Aquifer Recharge (MAR)?

A Managed Aquifer Recharge, or MAR, utilises the gravels of the Ruataniwha Plains as a sponge to store winter water.



## What is the MAR process?

We mimic nature as closely as possible, taking filtered water from the river during winter, when river levels are high, and moving it across land via underground pipes to a recharge site. There, water is dropped into a series of basins and is naturally filtered through rocks and gravels as it seeps down to the shallow aquifer.

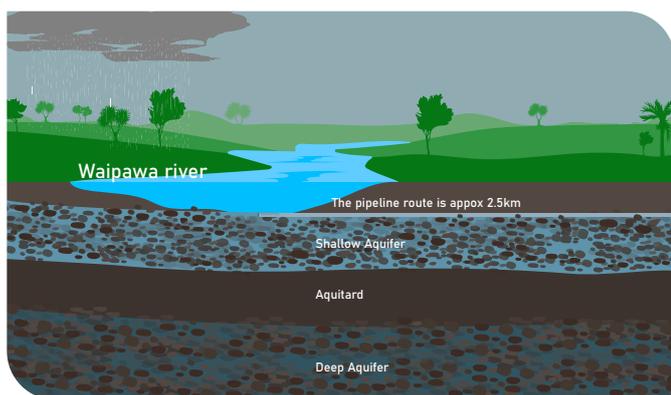
The shallow aquifer then ensures surrounding streams can continue to thrive during the dry months of summer. We're also looking to recharge the deeper aquifer by pumping filtered water down so it can increase aquifer levels ahead of the heightened demand through summer.



## Why is the Ruataniwha Aquifer being considered?

While we see the Waipawa and Tukituki running above ground, there is a much larger water system underground - the Ruataniwha Aquifer.

The aquifers under Central Hawke's Bay Ruataniwha Plains contain large amounts of groundwater that are already being accessed by homes, industry, and for irrigation.



The Ruataniwha Aquifer is shaped like a bathtub - a large basin surrounded by the Ruahine Ranges to the west and limestone hills to the east with distinct shallow and deep aquifers. The gravels and stone layers act as a big sponge soaking up and filtering water from the rainfall, rivers and streams recharging the aquifer, storing a supply of high-quality water. It's all these individual elements that make the Ruataniwha Aquifer a great location to pilot the concepts of Managed Aquifer Recharge.

## Working with our community

Council is committed to working with mana whenua to ensure the mauri of the river and the aquifers is protected and, if possible, enhanced. With mana whenua support, Council is carrying out a Cultural Impact Assessment, followed by a Cultural Monitoring Programme to ensure the environment and mana whenua connection to the awa are protected.

Learn more about the Regional Water Security Program project by visiting [hbrc.govt.nz](http://hbrc.govt.nz), search: #watersecurity

*Putting the environment first means we all win.*

*We need to manage our freshwater carefully and take a community approach to sharing it equitably.*

## Does it work?

MAR has been proven worldwide to be an effective and sustainable water management tool. Both Canterbury and Gisborne have implemented MAR trial sites and are looking at how it can be used to support their regions' water security. We want to pilot MAR in our specific local conditions to see if it is a viable option to build climate change resilience in Hawke's Bay.

## Freshwater for all

The MAR pilot sits alongside a programme of feasibility investigations the Regional Council is undertaking as part of the Regional Water Security Program, as well as its core work on water quality, flood protection, erosion control and biodiversity.