



## Message from the CEO

The renewal of our Discharge Consent on the 21st April 2021 is quite the milestone and I'm incredibly thankful to our team who have persevered since June 2018 to secure this permit to operate for you, our farmers. Getting to this stage has not been without its' challenges, especially in the last month as we have faced into escalating media interest in our consent and the process of its renewal.

Whilst many of the stories have led with sensationalised headings and inflammatory content, it hasn't been all bad. We have had plenty of people reach out and offer their support and I was buoyed that there were people at the 'Public Meeting' who wanted to understand what we were doing, how we were doing it and how they could help support our farmers.

The great thing about the public meeting is that it has opened up the opportunity to connect and engage with those who feel as though they are not being heard and for those we have reached out to and they haven't responded, it makes their motivation clear for all to see. For those that want to work with us, there will of course, be areas where we do not agree, but we all agree on wanting to see improved environmental outcomes and that is a great conversation starter.

I'll keep you updated on how our upcoming meetings with these stakeholders proceed.

You will have seen our shed meetings advertised, it is important that you find time to attend one of the Enviro Shed Meetings across the scheme (3rd and 4th of May).

We will provide an extensive summary of our groundwater and surface water programme results, our consent conditions, and environmental expectations.

We will also be seeking your input to help set the scene environmentally for MHV, which is why we would like to see as many of you as possible.

Lastly, we are continuing our work with the Mid Canterbury Essential Freshwater Discussion Group, the Ministry for the Environment (MfE) and ECan specifically relating to the 2.4mg/L of Nitrate Nitrogen National Bottom Line in the drains. We are making some progress, albeit slowly, and will continue to press for a pathway on your behalf and will update you at the Shed Meetings.

See you in early May.

Thanks  
*Mel*



Melanie Brooks, Chief Executive

# Our Updated Strategy

A strong Strategy provides an organisation with direction and purpose.

The Board, in association with the team, recently reviewed the MHV strategy. Reviews are undertaken to ensure that a strategy is still valid and to provide management with direction and actions to ensure the strategy is being achieved. Pleasingly there was a great deal of alignment between the thoughts of the team and Board.

Our mission has changed, but the intent behind it remains the same. Instead of *Sustainable Solutions for our Shareholders and the Community*, we have changed this to **Sustainable Solutions for our Community, now and in the Future**.

Our Shareholders are part of our community and we want to be one and working together. We also want to better reflect the inter-generational focus within the co-op.

Our values and purposes have remained relatively similar, with tweaks to ensure relevancy in today's environment.

Our priorities and initiatives are the things that will change more frequently in the strategy with some rolling off and new ones rolling on.

This is only a summary and there is a full Strategic Implementation Plan behind this strategy to keep the team busy and ontrack.

## Coming Up

### Environmental Shed Meetings

Monday 3 May 2021

1pm

Lagmhor Westerfield Hall

Tuesday 4 May 2021

1pm

Ruapuna Hall

Tuesday 4 May 2021

7pm

Hinds Community Centre

### Fertiliser Calibration Workshop

Thursday 6 May 2021

See page 8 for details.

# Our Strategy

## Our Mission

Sustainable Solutions for our Community, now and in the Future

### Our Values

- Inter-generational focus
- Responsible stewards
- Community minded
- Co-operative spirit
- Enable innovation

### Our Purposes

- Optimised water delivery
- Respect for the environment
- Robust and enduring Co-op

### Our Priorities / Initiatives

- Building strong partnerships with Mana Whenua
- Support continuous environmental improvement
- Waterbody health research
- Resilient, reliable, operationally robust and financially sustainable infrastructure
- Catchment collaboration



## MHV water nitrate testing at Mayfield Show utilised by many

This year's Mayfield A&P Show saw MHV attend for the first time, and test around 190 water samples for nitrate levels.

People from across Canterbury, with both urban and rural water brought their samples along to be tested, – free of charge. Those wanting their water tested simply had to bring a small clean container with their water in it.

Justin Legg oversaw the testing along with Mel Brooks, Evelyn Murray and Ella Stokes. Tests were completed with the HydroMetrics Nitrate GW50 Groundwater Optical Nitrate Sensor, providing people with their result in several minutes.

There was a range of results, however due to MHV's ground water sampling program across the Hekeao Hinds there were no real surprises and in general the feedback from people was positive.

“There were concerns raised about Nitrate Nitrogen levels in drinking water and having a stall at the show allowed us to share balanced, factual information for the community to enable people to make informed decisions for themselves.

We look forward to engaging in more activities like this in the future and hope that all our Shareholders are able to attend one of the Shed Meetings in May where we will provide a far more in depth summary of our monitoring results” Brooks said.



Justin Legg testing water samples for nitrate levels.



Team MHV at the show (from left) Evelyn Murray, Ella Stokes, Justin Legg and Melanie Brooks.



## Carparking at Irrigo

We love seeing our shareholders in the office, but unfortunately we do not have visitor parking on-site.

MHV only has two carparks and these are used by scheme vehicles. While the carpark can sometimes look empty, we do not have any right to park in the other parks.

Visitors to the building are asked to park either on the road (be aware of time limits), or in the free council carparks either side of the Fire Station.

Parking is also available in the carpark off Cass Street (this is approx \$5 per day).

**NEED TO TALK?**

**1737**

**free call or text  
any time**

## 2021 - 22 Water Charges

The Water Charges have been reviewed and set for the 2021-22 season.

Water delivery charges are based on the number of shares you hold. One share equates to 0.01 litres per second of water that can be delivered. We operate a cost recovery model, as such, with much of the cost to deliver the water being fixed, ie infrastructure, technology and people, the charges are not based on how much of your shared capacity you take for the season, but the capacity you reserve. This is known as a take or pay structure.

We have five divisional accounts which are made up of our lines: MH Open Race, Ruapuna, and Valetta along with Environmental and Shared Expenses divisions. The Shared expenses are shared proportionally based on lps across the three lines.

The Environmental charges are charged based on the number of hectares in your Farm Environmental Plan (FEP). This more fairly reflects the value you are getting as the FEP covers the full area of your farm, not just the shared or irrigated area.

Line	2020/2021 charge	Effective 20/21 charge (with Share split)	2021/2022 charge
M & MG shares - Open Race*	\$1.75 per share	\$1.46 per share	\$1.45 per share
M & MG shares - Ruapuna	\$8.25 per share	\$7.40 per share	\$7.00 per share
V shares	\$2.97 per share	N/A	\$3.10 per share
V Capacity Charge **	\$103.05 per lps	N/A	\$109.64 per lps
Environmental Charge	\$8.50 per ha	N/A	\$8.50 per ha

These new season charges are effective from 1 June 2021 with the first payment due 20 July 2021.

\*Harris Drain has additional infrastructure charges.

\*\*Valetta Capacity Charge is indicative only and will be confirmed on completion of year end accounts.

**Due to divisional account surpluses in the MH Open Race and Ruapuna Lines there will be no water delivery charges for these lines for April and May 2021. The Environmental Charge will still be invoiced.**

## Carew Storage Ponds

As part of our normal monitoring of the Carew Storage Ponds we have become aware of some small puncture marks in certain areas of the lining around the full level of the ponds.

We are working with our engineers and other specialists to determine the extent of the remediation, however at this stage the engineer has advised that an immediate fix is not necessary due to very limited risk and we need to take the time to fully understand the cause.

As part of the 5 year full review of the Carew Storage Ponds, the Potential Impact Classification (PIC) of the ponds has also been reassessed. The PIC was originally deemed to be 'Medium' and pleasingly it has remained at that level.



## Dam Safety Regulations

Along with Irrigation NZ, MHV took a leading role in providing feedback to the Ministry for Business Innovation and Employment (MBIE) on their proposed Dam Safety Regulations.

We agree the need for ponds to be 'registered' but strongly opposed their view that on farm ponds posed a sufficiently large threat to require PIC assessments and regular engineer monitoring and compliance. We hosted MBIE officials to show them the level of risk and how their proposed regulations were not fit for purpose, however that appears at this stage to have only increased the 1m dam bank limit from 30,000 to 40,000m<sup>3</sup>.

MBIE have determined that if you have a pond that has the following characteristics you will fall under the new regulations:-

1m or higher dam (bank) with a volume  $\geq$  40,000 m<sup>3</sup>

4m or higher dam (bank) with a volume  $\geq$  20,000 m<sup>3</sup>

We do not have any detail yet of the requirements. It is likely our open races will be included, assessment of which will be a significant undertaking. As such there may be the opportunity for us to contract one person/team to do the necessary assessments at scale to reduce the costs to all. We will continue to monitor the release of information and provide guidance of the pathways available to you/us.

## Water Supply Agreements

On the 1st June 2021 we will be undertaking the MG Share Redemption, Share Issue and then the M Share Split.

Given the extent of the number of Shareholders who will require new Water Supply Agreements (WSA) we are taking this opportunity to review and update the Agreements for all Shareholders. Presently some Shareholders have addendums to their agreements to clarify the flow to offtakes (where there are multiple offtakes) and we will now include that in all agreements so there is consistency and we will be updating terms to ensure that there is no ambiguity regarding expectations on Shareholders or on the Co-op. We will discuss the proposed changes to the WSA at the Shed Meetings and enable you to provide feedback prior to finalisation.

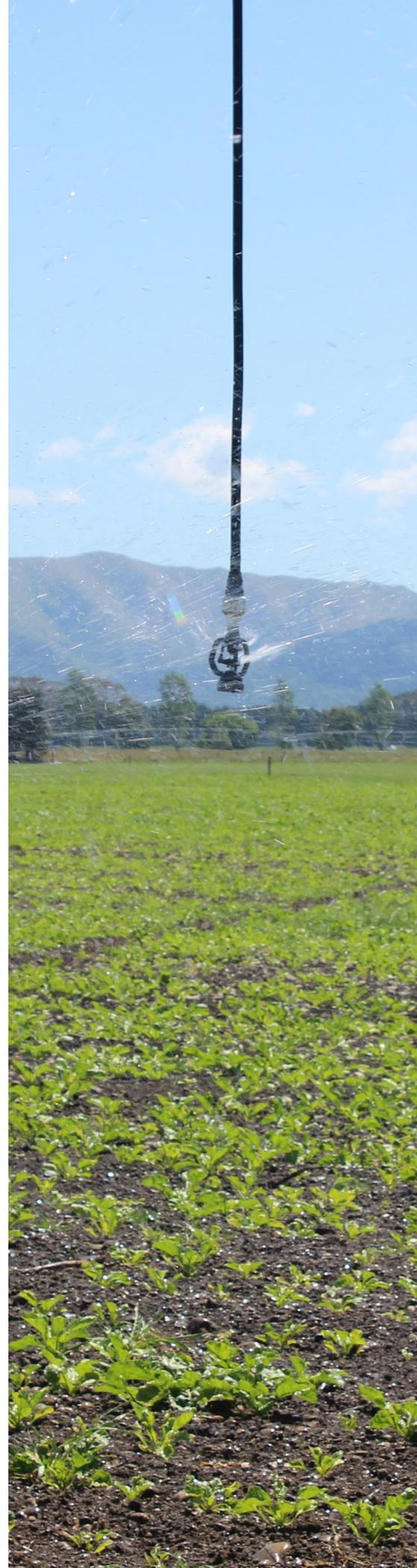
## End of Season is approaching

The irrigation season ends on 9 May.

With the end of season approaching, please note that stockwater will not be available in the Valetta line over winter.

Our team will also be out buzzing the drone over open races and piped infrastructure to assess condition and identify any further maintenance issues. This may include over outlet boxes.

We will also have plenty of silt available from race cleaning if anyone in the MH line has holes they need filled in. Please let Sam know if you are interested in this.



# Infrastructure Plan Update

Design work is underway on the open race upgrade work to alleviate pinch points in the system, to provide the 20 percent extra water for September 2021.

The main upgrade sites are Cracroft Main Race/Lateral 2 junction, Lateral 1 headgate, Lateral 2E headgate, and Lateral 3 headgate. This work will also involve a large amount of race cleaning in the open race network.

Work is continuing on Valetta risk upgrades for Ponds 1 and 2. There will be interim repairs this winter to minimise screen operational issues for next season as we develop an optimised solution with the objective to cost effectively remedy the current risk of failure along with pressure issues. As part of this workstream we have incorporated resilience planning for potential remedies should there be a failure mid-season.

Work continues to support HHWET with the development of new MAR sites throughout the MHV network. HHWET has multiple proposed MAR sites that they are looking to install and have operational for September 2021.



*Cracroft consists of both the Main Race and Lateral 2 control structures. In order to increase capacity for next season both of these structures require upgrades due to current infrastructure limitations.*

## Team Update

Murray Neutze from our Operations team will soon be moving into a new role and new challenge.

Murray joined our Operations team in 2015 working on the open races. More recently this has included responsibility for the day to day operations of the MAR sites, including water testing, development and maintenance.

With our ground water and surface water monitoring programme expanding and requiring additional support to collect samples, and with financial contributions from HHWET and BCI, it seemed logical to roll MAR and water sampling work together, and as such, Murray has accepted the new role of Hydrology and MAR Officer. He will continue to support the Operations team in the weekend roster.



We will advertise a vacancy in the Operations team in the short term, and if you know of anyone with strong technical skills who might be interested, please contact Sam Anderson.

# Authorised Land Use Policy and FAVA triggers

Water quality in the Hekao/Hinds Catchment has deteriorated over the past 20 years.

MHV Water Ltd (MHV) now holds a discharge resource consent, CRC185857, to manage the effects of nitrogen loss from shareholder properties and it includes a catchment nitrogen load limit. The catchment nitrogen load limit will decrease over time to comply with reduction targets set by Plan Change 2 of the Land and Water Regional Plan.

In order to ensure the scheme remains on track with meeting catchment water quality outcomes and compliance with their nitrogen discharge consent Shareholders who want to make a change to their farming operation must get MHV consent to make changes. This process has been in place since 2018.

To make this process easier, MHV Water have now developed an Authorised Land Use Policy to identify a property's Authorised Land Use (ALU) and the process to make changes.

The ALU will provide a greater degree of certainty for Shareholders by detailing the maximum permitted land use parameters including;

- Irrigated area
- Winter grazing area
- Stocking rate
- Supplement use and fertiliser usage will also be documented.

If a Shareholder wishes to increase any of these parameters they will need to seek MHV approval by completing a Farm Activity Variation Application (FAVA).

The Irrigo Environmental team is working on our behalf to compile Authorised Land Use documents for all properties receiving MHV water.

This information is a culmination of information provided by shareholders/managers to the scheme through previous FEP updates and Nutrient Budgets. We anticipate that this will be a lengthy process, with an estimated completion date of December 2021.

In the meantime, if you are considering selling your property, but have not received your Authorised Land Use, please contact us. We will prioritise providing you this information.

If you wish to apply for a variation to your Authorised Land Use (ALU), or you don't yet have your ALU but are thinking about making a change. You must contact us. It is likely that you will need to complete a Farm Activity Variation Application (FAVA).



The FAVA must demonstrate;

- The change will not result in an increase in N losses or in drainage concentration of N loss;
- The Property is able to meet anticipated reduction targets;
- The Property does not rely on an unauthorised intensification on another property (e.g. move winter grazing somewhere else);
- The variation does not have a negative impact on a sensitive receiving area ; and
- The proposed variation aligns with the schemes overall objectives, including continuous improvement.

*With the recent granting of CRC185857 we will need to update our Environmental Management Strategy (EMS). It is likely that we will need to further evolve our FAVA process to align with the EMS requirements and we will keep you informed of any changes to the FAVA process to meet our consenting requirements.*

# FEP Updates

The Environmental team will soon be calling you to schedule your FEP update.

**Act Now!** We have a limited window to demonstrate environmental improvements – decreasing nitrate levels in groundwater and surface water.

This year the key focus areas of your FEP Update will be:

- Consent update – on farm requirements under the new consent
- What is your Greenhouse Gas emission?
- Authorised Land Use and FAVA applications
- Baseline signoffs – the irrigation and land use for the Baseline period (2009-2013) will need to be confirmed for all properties by the Shareholder
- Winter grazing – what are you doing with your stock from May to September?



## Fertiliser Calibration Workshop

### When did you last calibrate your fertiliser spreader?

Irrigo Centre are hosting fertiliser calibration days with Spread Test NZ. The team will calibrate your fertiliser spreader and talk you through how to identify and troubleshoot any problems. By calibrating your fertiliser spreader, this will ensure you are using fertiliser to its full capacity to meet the 190 N Cap and help to achieve an 'A' grade audit.

#### OPEN TO ALL SCHEMES

**Thursday, 6 May 2021**

**8.45am – 12pm Session**

Location: 924 Old Main South Road, Ealing, Ashburton, 7773

Supply Number: 37101

*Attendees must supply their own Fertiliser for Calibration workshop.*

**Next workshop date:**

Friday, 6th August 2021 - Location to be confirmed



**\$450 plus GST**  
per spreader



Secure your place today on 03 975 8547 or RSVP to [sarah@irrigo.co.nz](mailto:sarah@irrigo.co.nz)



# Groundwater Update

## Kia ora!

More likely than not, you've either seen me dressed as a human traffic cone wandering around your farm or discovered me at your front door talking at 200 words per minute.

So, if we've only just met - here's a bit about who I am...

I graduated from Uni as an Exploration Geologist in '97 and then spent the better part of 20 years looking for gold and base metals in Australasia. In 2017 I completed my Master's degree where I examined the pilot Managed Aquifer Recharge (MAR) program at Lagmhor; and thereafter started working at MHV in early 2020.

Away from work, I'm a frustrated rock climber, mountaineer and trumper; father of 2 teenagers, as well as hobbyist beekeeper and home brewer.

As for the incandescent work gear – it's a mixture of OHSE and practicality – but I'll take it as read that I can be seen from space!

Cheers, Justin



**Justin Legg**  
Senior Hydrogeologist  
Kaimātai Wainuku Matua  
Mobile: 027 223 7260  
Email: justin@mhwwater.nz

## Introduction

MHV commenced routine groundwater monitoring of NO<sub>3</sub>-N levels within the scheme area in September 2016, with an initial survey of 29 bores as a tangible expression of MHV's mission to provide "Sustainable Solutions for our Community, now and in the Future". By late 2020, this had extended to over 100 bores ranging in depth from 5 m to 160 m.

In 2021, Barrhill Chertsey Irrigation Ltd (BCI) and the Hekeao Hinds Water Enhancement Trust (HHWET) joined this initiative thus enabling the program to extend its footprint beyond MHV shareholders.

## What did we do?

During March, MHV visited 140 sites based on a nominal spacing of between 2 – 3 km equating to a survey area of 111,320 ha - making it potentially the largest in groundwater monitoring program in New Zealand.

As a result of this support, the latest sampling round in March was increased to 140 bores and covered an area stretched between the Ashburton/ Hakatere and Rangitata Rivers, that extended from Longbeach to the Gawler Downs.

Most importantly, this could not have been done without your support.

By being part of this program, you are integral part of a community led initiative to manage nitrate levels in the water. You now have a voice in the discussion.

As part of this survey, MHV tested for nitrate-nitrogen, dissolved oxygen, conductivity, turbidity, temperature, pH and Oxidation-Reduction Potential (ORP).

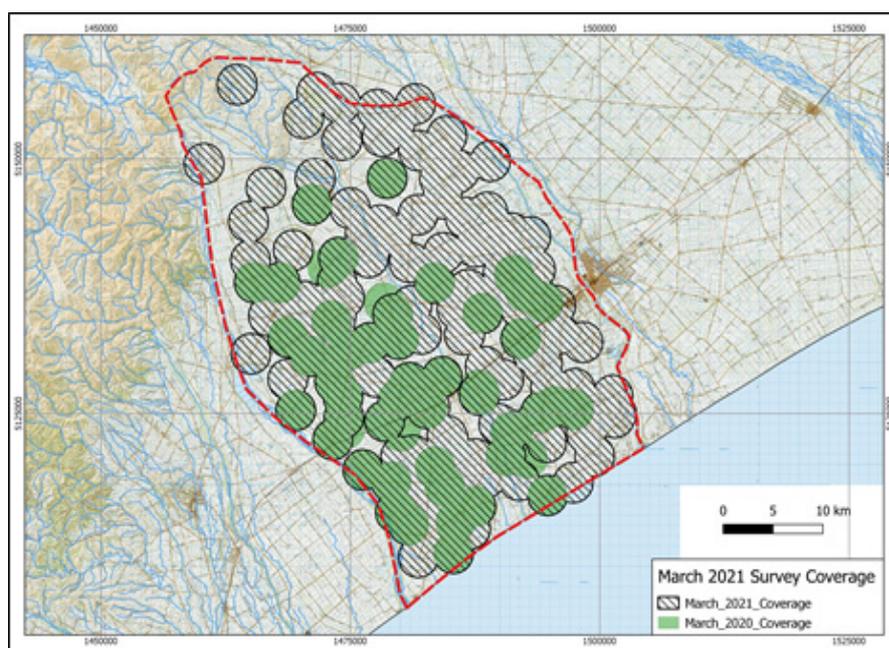


Figure 1: 2020 and 2021 Survey footprints

## How did we do it?

Over 70% of the bores tested are domestic or farm support, which are purged before samples are taken. In some cases, however, the only available sample is via a tank.

Water samples were analyzed inhouse via a HydroMetrics Nitrate GW50 Groundwater Optical Nitrate Sensor. It works by measuring the ultraviolet (UV) light absorbed by nitrate from a Xenon flash.

When compared to Hill Laboratories Automated Azo dye colorimetry analytical techniques, this approach is within +/- 5%; so is considered fit for purpose for most applications.

## What were the results?

Under Plan Change 2 (PC2) of the (Canterbury) Land and Water Regional Plan (LWRP), Hill-fed Lower and Spring-fed Plains surface waterbodies of the Lower Hekeao Hinds Plains are to have an annual median NO<sub>3</sub>-N concentration of 6.9 ppm by 2035.

Hence both the median and average is presented here.

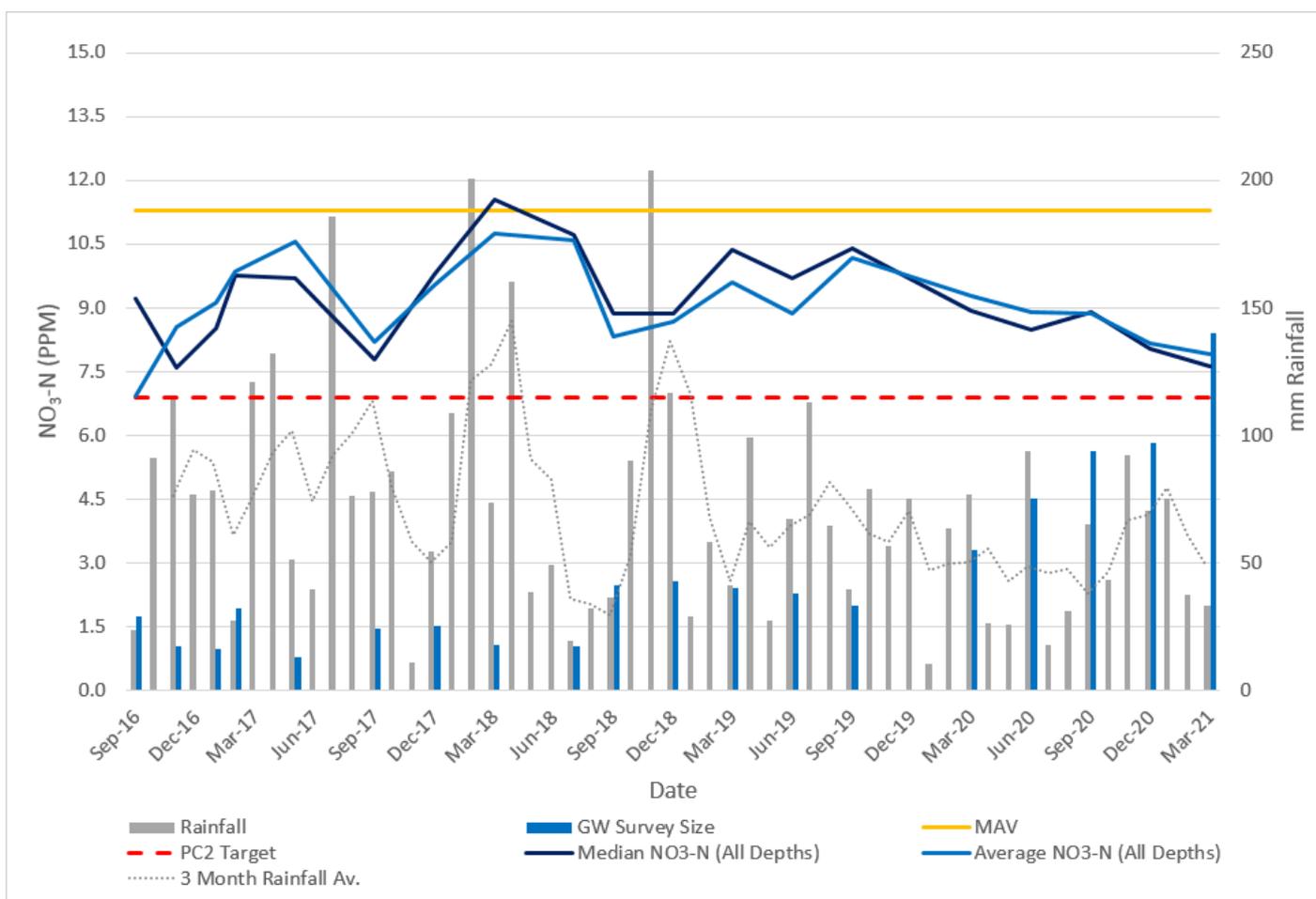
The NO<sub>3</sub>-N results ranged from 0.13 to 21.25 with an overall average of 7.87 ppm – see below.

## How do they compare to the previous survey?

As the footprint of the survey was dramatically increased from the December survey (92,285 ha compared to 111,320 ha) some inherent differences between the data sets is expected. In this case, a direct comparison of the 93 bores tested in both December and March revealed a negligible 0.3 ppm difference, which is within the limits of instrumental error.

By including the additional holes, the results are considered more robust and indicate a continuing decreasing trend in nitrates.

Long term average and median NO<sub>3</sub>-N vales for all bores (irrespective of depth) across the Hekeao Hinds Plains as of March 2021



## Opportunity for farmer involvement in Donaghy's N-Boost

The AgriBusiness Group and Donaghy's have teamed up to demonstrate the impact N-Boost has on farm systems, to improve pasture response and reduce N fertiliser use.

Field trials have shown that N-Boost can double pasture response to urea and significantly reduce the cost of dry matter production. To find out more visit <https://www.donaghys.com/n-boost>.

They will be working with five dairy farms in the 2021-22 season, including a Mid-Canterbury farm. Participating farmers will receive a free mixing tank and N-Boost product, Overseer nutrient modelling, and support throughout the project.

This is a great opportunity for farmers required to reduce to the 190 kgN/ha cap, without compromising production. If you would like to be involved in this project further then please contact Sarah or Charlotte at The AgriBusiness Group for more information

Sarah O'Connell, 027 622 0799  
[sarah@agribusinessgroup.com](mailto:sarah@agribusinessgroup.com)

Charlotte Irving, 027 310 1438  
[charlotte@agribusinessgroup.com](mailto:charlotte@agribusinessgroup.com)





# QUIZ NIGHT

**DUCK SHOOTING THEME**  
 Goodwin lounge, Methven racecourse  
 30th April at 7.30 pm

**SPORTS THEME**  
 Southern Rugby club, Hinds  
 7th May at 7.30 pm  
 Hinds Quiz night proudly sponsored by The Hinds Lions Club! Thank you

**Teams of 4-6**  
**\$10 per person**  
**Payable at the door**  
**BYO drinks**  
**Supper provided**  
**Prizes for best dressed in theme of the night!**  
**Lots of Prizes!!!**

*Guest Speakers during the break!*

[farmingfamilies4u@gmail.com](mailto:farmingfamilies4u@gmail.com)  
 or check out our  
 Facebook page: @farmingfamilies4u

FARMING FAMILIES PRESENTS

## Mid Canterbury Rural Community ball

ALL TICKET PURCHASING FOR THE BALL FROM 19TH APRIL through [www.trybooking.com](http://www.trybooking.com)

**12th June 2021, Hotel Ashburton**  
 Early bird tickets\* \$65 on sale from 19th April  
 \*Purchase early bird with a rural address  
 Remaining tickets\* \$75 on sale from 1st May  
 Book online: [www.trybooking.com](http://www.trybooking.com)

**Featuring ~ Jody Direen**  
**Amazing prizes to be won!**  
**with charity auction**  
**Cash bar in operation**

Thank you to our amazing sponsors








  
SCAN ME

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