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December 2021

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Message from the CEO

As the festive season approaches we're reflecting on the calendar year and would like to acknowledge the on going progress that you, our farmers, are making with on farm changes that will positively impact improved environmental outcomes.

Our consent requires us to make reductions to our leaching, and further reductions will be required if we see deterioration in surface water quality.

We are working hard to develop and refine options for us to treat the water before it enters the water bodies and other actions which will support healthy water ways, but to stay ahead we also need all farmers to keep up their focus on reducing Nitrate leaching from their farm systems.

Changes that have been made to date that we know make a difference include using soil moisture monitoring and the forecast to make better irrigation decisions, pasture management to best match pasture growth with feed demand, wellhead security improvements, refining the application of fertiliser (especially in the shoulders), integrating plantain into your sword, direct drilling and not leaving paddocks fallow, reducing the use of offal pits, and planting out areas of less-productive land.

The way for us to stay ahead of this challenge is to continue to focus on 'doing stuff better' with an environmental lens across everything we do.

We also want to make sure we are doing everything we can to support shareholders, so we recently invited some shareholders to join us to discuss the challenges, roadblocks and opportunities associated with on farm changes.

The insights that were shared have enabled us to build an action plan to help support you through the ongoing changes.



The draft action plan is outlined on page 2.

If you would like to contribute to shaping this action plan or have any other views you'd like to share please give me a call and we will be keeping you updated on our progress.

Wishing you and your whānau a very happy festive season and the team and I look forward to working with you in 2022.

Ngā mihi Mel





On Farm Change - Draft Action Plan

The Action Plan focuses on key themes and practical actions we can take in the short term and is in no particular order:

Science

- Identify knowledge/science gaps in current or potential practices that could help onfarm
- Collate a register of science/research projects that are already being undertaken in these areas (not just in NZ)
- How is the research being implemented/tested on farm, are there any remaining gaps? How can MHV support?

Knowledge Centre

- Identify parties that could support building a risk matrix based to rank potential changes that can be made on farm
- Confirm parameters for the matrix; GHG, profitability, N leaching are there any others?
- Identify parties who could participate in building checklists for considerations when looking at change
- Review our format and frequency of farmer field days to increase benefit for attending farmers

Government (Local/Regional/Central)

- Advocate for a bipartisan approach to setting environmental limits (Central Govt. I've already started this)
- Sharing knowledge of change management and best practice
- Understand appetite for a Govt. backed insurance (not a subsidy) for testing/trialling on farm changes to foster innovation.

SUPPORTING FARMER WELL BEING



Rural Support Trusts 0800 787 254 (Calls are answered by your local Rural Support Trust) www.rural-support.org.nz





New Manager Workshop

Each year we invite managers and shareholders who are new to MHV, to join us for a workshop to learn more about the scheme.

This year, instead of the workshop being based in one of the local halls, we took the managers on a bus trip to view the infrastructure, see where the water for irrigation comes from, and learn more about our environmental programme.

The tour visited the Carew storage ponds, and the RDR intake and fish screen site at Klondyke. We also stopped in at Ruapuna Farms for an environmental discussion. After lunch, the session was rounded out with a bucket testing workshop.

Big thanks to Grant Early and Nick Giera from Ruapuna Farms, Tony McCormick from RDRML and Matt Sinton, for their support of the day and to all those that attended.







Our Board

Thank you to the Shareholders that attended the AGM, voted in advance or watched our live stream on the Facebook group.

Congratulations to John Nicholls and Cole Groves for their election to the Board of MHV Water Ltd. This year we had two vacancies and received two nominations and therefore no vote was required.

The Board and team look forward to working with Cole and John over their coming term.



From left: Vince Lobb, Richard Wilson, Melanie Brooks (CEO), Evan Chisnall, John Nicholls (Chair), Simon King, Jen Crawford (Independent), Cole Groves. Absent: Craig Osborne (Independent).

Cooperative NZ Governance Development Course

Cooperative Business New Zealand is proud to extend its governance programme offerings by partnering with Mayfield Group.

This comprehensive programme is designed to support developing future governors operating within the cooperative and governance environments.

The programme is open to all members of Cooperative Business New Zealand and their shareholders, designed specifically for aspiring directors and those that are new to boards.

As a shareholder of MHV, you may be eligible for funding to receive up to 50% off the programme through Regional Business Partner Network. If you are interested in applying for next year, ensure you apply early before funding is fully allocated.

Learn more about funding and the 2022 programme at <u>https://nz.coop/coop-governance-development-programme</u>



MHV expands Water Quality and Water Health Monitoring

Recently we expanded our monitoring programme to include measurement of both water health and quality in the Harris and Oakdale Drain (Coldstream Creek).

As part of this we are working with Dr Greg Burrell (left) from Instream Consulting and Al McCabe from Irricon Resource Solutions to monitor;

- Macroinvertebrates
- deposited fine sediment
- Periphyton (percentage cover and chlorophyll-a)
- macrophytes (percentage cover); as well as the usual
- NO3-N, dissolved reactive Phosphorus, and Escherichia coli.

This programme intends to develop a Base Attribute State for future consent monitoring requirements. Monitoring will be monthly.



Community Involvement

Since the floods, MHV has been contributing time and expertise towards restoration efforts across the catchment.

Notably, MHV was able to assist Donna Lill and Ryan Dynes from the Ashburton Ecan Office with some ideas and conceptual design for a design of a freshwater habitat in Bowyers Stream near Mt Somers.

Additionally, we have attended field days and online collaboration sessions to promote the environmental monitoring programme on the Hekeao Hinds, shared knowledge and experience, as well as learned from other farmers and brought these ideas back to the community.



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New Zealand Hydrological Society Conference

MHV attended the New Zealand Hydrological Society 60th Conference 2021 at Te Papa in Wellington.

The conference was held in the first week of December. The theme of this year's conference was "An Essential Freshwater Odyssey" which hopes to capture the idea of water management as a journey, from the past to the future, via the crossroads we currently find ourselves at with the government's Essential Freshwater reforms and the central concept of Te Mana o te Wai.

As part of this conference, MHV presented two papers. The first highlighted the leadership role our farmers have taken to invest in science to improve their knowledge of the groundwater and surface water in our catchment, the evolution of the programme, and the reducing trend we have seen.

The second paper presented an overview of the rainfall events in May/June this year and the nitrate response/time lag. Thank you to Dr Helen Rutter from Aqualinc Research who joined Justin Legg to present the second paper which was focused more broadly on the whole of Canterbury.



Baseline Maps Sign-Off

During our resource consent process, ECan wanted us to confirm the property farm system and irrigation information we used to inform the nitrogen load limit we applied for.

Completing this check during the consent would have delayed the decision by 12 months or more, so we agreed we would re-map the scheme in a way that would most conservatively capture nitrogen losses and allow us a 12 month window after the consent was granted to correct any errors, by providing supporting information.

The Irrigo team should have provided you with the maps we used for calculating the consented load ("baseline maps") during your FEP update. We know that some of these maps may not be correct and we are looking for your help to correct these.

If you haven't signed off these maps already, someone from the Irrigo team will touch base with you soon to see if you need any help to find the information needed to update the maps to reflect what you did during the baseline period. Our last chance to collect supporting information from shareholders to make any changes to these maps is **18 February 2022.**

Authorised Land Use

We know we can achieve our existing nitrogen reduction targets if we continue farming our existing systems and improve their efficiency.

To provide transparency of what we have recorded as your existing farm system, we are preparing an Authorised Land Use (ALU) for each property. The Authorised Land Use is based on the information we have on file through your Overseer nutrient budgets and Farm Environment Plans and describes the farm system you can operate within without seeking approval from MHV. We are making good progress on completing the ALUs and intend to have them completed for all shareholders by March 2022.

Our new resource consent introduces the possibility of additional reductions to our nitrogen load if surface water quality outcomes deteriorate. It is important that if you want to change to a farming activity that is at higher risk of leaching, such as increasing your stocking rate or expanding your dairy operation, you may first need to apply to MHV for permission through the Farm Activity Variation (FAVA) process. No activity is prohibited or banned, we just need to ensure your change will result in a net benefit to the environment. Some activities may also require approval by ECan under the National Environmental Standards framework.

Over the next few months, the Irrigo team will let you know when we start the ALU process for your property and may need to update your OverseerFM subscription. Once your ALU has been prepared and checked, we will send through a draft for you to review and confirm before it is finalised. If you have any questions or find any errors, please touch base with the Irrigo team.

Irrigator Checks and Bucket Testing

It's that time of the year again to check to make sure your irrigators are applying water evenly and in the right amount to maximise the value of the water you are using.

Blocked nozzles or wear and tear can mean less water is applied where it needs to go, more breakdowns, and/or reducing the amount of grass or crop you can grow. Guns can go awol and things can break down.

Now is a good time to take a walk and eyeball your irrigators to make sure they are working. We also recommend you check your irrigators at least once every three years.

Your bucket test is just one check you can do. IrrigationNZ have also approved a new test to check your pressure regulators and monitor their performance.

If you need help to check your irrigators and understand the options

which could suit you, feel free to contact the Irrigo team.

Result of uneven application



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Collaboration

Last Friday saw MHV farmers and representatives from Environmental NGOs come together for a field trip which included visiting farms, wetlands, drains and MHV infrastructure across the Hekeao Hinds.

The trip was an opportunity to showcase the great work MHV farmers are doing and bring people together to find common ground for a shared vision to drive improved water quality outcomes.





Valetta Line Workstream

We have held two shed meetings recently to discuss the risk assessments and corresponding asset maintenance, repair and replacement we require in the Valetta Line and we'd like to thank the shareholders who have taken the time to attend.

When the line was put in place, the ingenuity of Aquaduct to be able to deliver a scheme at the price they did was leading edge and there was recognition at the time that there may need to be further spending on the line in due course. Some infrastructure was temporary, ie the PRV at Pond 1 and 2, because there was a contract for generation. But when this didn't stack up financially and the company engaged to deliver the solution went into liquidation it didn't eventuate.

The nature of being at the leading edge with innovation is that some of the decisions made at the time have created ongoing maintenance, midseason failures, considerable risk and concern of catastrophic failure midseason with a high health and safety risk as well as extended outage during the season.

We have discussed the issues in the line numerous times over the last few years and more specifically we've been talking about our risk review and possible cost implications, now we are getting to the pointy end of this process and we held the meetings to provide an overview of the assessments and progress, steps from here and to get Shareholder feedback/guidance.

For those who were unable to make the meetings the presentation is summarised in a handout which is available from the office or by emailing info@mhvwater.nz. If there are any queries or you'd like to discuss further please contact Mel.





CRC185857: ECan Compliance Report

Our Compliance Report to ECan was submitted at the end of November as per our consent conditions.

This report bridges from our previous consent to our new conset and I'm pleased to confirm that there are no areas of non-compliance and I thank all shareholders for their continued focus.



For a full copy of the report, please email the office.

Do you have shares to sell or lease?

We have received an expression of interest to purchase M shares.

If you find you have excess water, you may wish to consider selling some shares.

Please note:

- M share water must remain in the MH or Ruapuna infrastructure, and V share water within Valetta infrastructure, and is subject to the restrictions of the infrastructure.
- All transferring of shares is subject to approval by MHV and there must be no net increase in nutrient leaching as a result.
- Any financial arrangements around the selling of shares shall be the responsibility of the seller and purchaser to determine and enforce.

The same conditions apply for leasing water. Please contact us if you would like to discuss buying, selling or leasing further.

Pond Sensors and Pump Sheds

We have recently experienced some problems when pond sensors have come into contact with electric fences.

Please ensure electric fences and electric fence earthing are kept clear of pond sensors and junction boxes, and that infrastructure is protected from stock. These are expensive and time consuming to replace.

Please liaise with scheme operators to prevent damage.

Water Ordering Reminder

Please ensure you order the water you need or are using, not just the maximum flow.

Shareholders are responsible for managing orders and pond levels. When you order your water, you can select the desired flow rate. When your pond is approaching full, please cancel any remaining orders to avoid overflows.

Contact your duty phone if you require assistance.

Dog Safety Reminder

If you are the owner of a dog, be that a working dog or a pet, you are responsible for that animal's behaviour.

Please respect when people / MHV staff are coming onto your property they may ask you to tie your dog up.

Although your dog may be deemed safe there are many factors to consider and we want to ensure our staff and others are safe.





Irrigo Office Christmas hours and MHV team contacts

The Irrigo Office at 326 Burnett St will be closed from

midday Thursday 23 December 2021

and will re-open on

Wednesday 5 January 2022.

The Operations team will be on skeleton staff, running water over the Christmas and New Year period.

For Valetta and Ruapuna, please phone 027 239 5199. For Laterals 1 & 2, please phone 027 435 6256. For Main Race and Laterals 3, 4 & 5, please phone 027 435 6252.



