



News from the Environmental Team at Opuha Water Ltd (OWL)

ENVIROUPDATE

WELCOME

Shareholders and water users,
The Environmental Team at Opuha Water Ltd (OWL) started this newsletter with the intention of providing you a couple of pages of updates in the environmental space ... it quickly grew! As you will read, there is a huge amount going on at a scheme, regional and national level.

Our job is to make your navigation through this minefield as straightforward as possible, while ensuring our resource consents are enduring and the environment in which we live, work and recreate is maintained, and where needed, enhanced.

This is our first environment-focused newsletter. We aim to produce these twice yearly. We also keep you informed of other relevant environmental matters in between newsletters, via emails and information sessions.

Please contact the environmental team if you wish to discuss any of the matters addressed in this newsletter.

JULIA CROSSMAN
OWL Environmental and Regulatory Manager

FARM ENVIRONMENT PLANNING & SHAREHOLDER EDUCATION

A+ Audits and Management Area Merit Awards Program

The Environmental Team has further developed the Audit 'rewards' programme, by introducing an **A+** Audit Grade and a Management Area based Merit Award, starting 1 July 2021.

A+ status will be awarded on an annual basis to those shareholders who have gone above and beyond GMP, and are operating at an exemplary standard deserving of recognition amongst their peers. Auditors will nominate those shareholders who have achieved an **A** grade, but are operating well above **A** grade requirements. Recognition will be through a certificate and \$500 voucher at the end of the financial year.

Ten Merit Awards will be presented to shareholders who show innovative management beyond GMP in specific management areas on-farm.

Any shareholder who has received a **B** grade or higher will be eligible for a Merit Award. These will be recognised with a certificate and \$200 voucher. Merit awards will be issued for:

- Irrigation management
- Nutrient management
- Effluent management
- Waterbody & biodiversity management
- Soils management
- Point Source management
- Water management (excl. irrigation)
- Mahinga kai management
- In-stream biodiversity management
- Tuhituhi neherā (rock art) management.



THE ENVIRONMENTAL TEAM

If you have any questions about issues that have been raised in the newsletter, don't hesitate to get in touch with OWL's Environmental team.

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Greenhouse Gas (GHG) Emissions

He Waka Eke Noa is a 5-year partnership between Government, 11 primary sector industries, and iwi/Māori to measure, manage and reduce on-farm agricultural GHG emissions and adapt to climate change. The programme has set milestones to be met;

1. By the end of 2021, 25% of farms over 80ha, or a dairy farm, or a cattle feedlot, should know their annual total on-farm emissions
2. By the end of 2022, 100% farms over 80ha, or a dairy farm, or a cattle feedlot, should know their annual total on-farm emissions
3. By the end of 2024, all farms will have a written plan in place to manage their greenhouse gas emissions
4. Jan 2025 all farms are using the system for farm-level accounting and reporting of agricultural emissions. This will include an appropriate pricing system.

Government has legislated that a price on emissions will start in 2025, but if the agreed milestones are not reached, it is possible agricultural GHG emissions at processor level will be brought into the Emissions Trading Scheme earlier than 2025.

Developing an appropriate pricing system as an alternative to the emissions trading scheme with farmers and growers

involved, is one of the challenges that has been set for He Waka Eke Noa, along with more information on on-farm sequestration options and how that works in with pricing.

OWL hosted a shareholder information evening to provide more understanding of what is required to calculate on-farm emissions, what drives the numbers, and an opportunity for questions to be asked.

Irrigation Awards

Entries are now open for the 2021 Zimmatic Trailblazer Sustainable Irrigation Awards. These trailblazer awards help farmers share ideas for achieving sustainable freshwater management and tell their stories to a wider audience. This year's competition is open to New Zealand farmers who irrigate more than 25ha.

OWL encourages shareholders to consider entering these awards, or nominate someone else you think is deserving. The online entry and nomination process is easy, simply visit the awards website irrigationtrailblazer.com and click the red links on the home page to access the appropriate form.

You can also find out what impressed the judges last year in the two-part leading submission summary, click here for **Part 1** and **Part 2**. This provides insight into why the leading entrants from the 2020 awards caught the judging panel's eye.

SHAREHOLDER INFORMATION REQUEST

Domestic drinking water supply

We are developing a survey to be sent to all shareholders and water users, to enable us to better understand where domestic drinking water supplies are sourced from throughout the scheme. In particular, we are keen to understand:

- the source of domestic drinking water; i.e., district council supply, groundwater, surface water, other source
- whether you have a water treatment system and whether any water quality testing has been undertaken on the domestic supply (if it is not the council supply)
- whether the source is supplying more than one house, which would mean it is a 'water supplier' under the new Water Services Bill.

This information will enable OWL to effectively target and communicate with shareholders regarding domestic water supplies. For example, it would allow us to directly notify shareholders if there is an algae/cyanobacteria blooms and associated health warnings in particular surface waterways; or keep shareholders updated directly on the Water Services Bill. It would also help us form a picture of what testing has been undertaken on domestic supplies to add to and improve our knowledge of water quality scheme wide.



Disposal of dead animals on farm: Focus on the risk

FEP Audits include a section on the management of point-source pollution risks, such as the disposal of rubbish and the use of pits on-farm for disposing of inert waste and casualty animals.

In recent years Canterbury farmers have made good progress on recycling rubbish and reducing on-farm disposal, including recycling domestic waste and schemes to recycle silage wrap, silage covers, grain bags etc.

However, due to changes in markets, the businesses that collect and process casualty or unwanted livestock are either increasing their charges or ceasing collections. This means more Shareholders will be

disposing of dead animals on-farm. The risks of not disposing of animals appropriately include contamination of groundwater and surface water, odour from burning, and the spread of disease. There are various rules for the disposal of animal carcasses in the Land and Water Plan and the Air Plan, if the rules cannot be met then a resource consent is required.

FEP Auditors will be evaluate on-farm stock disposal to ensure any risks to water quality are appropriately managed.

- **Burial:** The primary risk arising from burial is contamination of groundwater. As burial occurs below the root zone, all nutrient discharges are eventually lost to groundwater.

- **Composting:** The primary risk associated with composting is odour from poor composting practices and biosecurity issues arising from inappropriate disposal of semi-composted material on-farm. Poor location of a composting stack in an area prone to flooding is also a high risk.
- **Incineration:** The primary risks associated with incineration relate to smoke and particulate emissions to air.

Complaints Policy

We are working on a new policy, and update to the Environmental Management Strategy, to create a consistent process for dealing with complaints and non-compliance observed outside of an audit situation. This will capture events such as watering non-target areas (roads, roadsides), over-irrigating causing run-off etc and provide a clear path for escalation when OWL receives (or observes) complaints for similar situations.

RULES

Burning animal carcasses and offal

The discharge of contaminants into air from outdoor burning of animal carcasses and offal is permitted if:

1. the discharge occurs on a property >2ha; and
2. burning is >100m from any National Grid power line or substation (unless permission obtained); and
3. the discharge occurs >100m from a property boundary.

The discharge cannot cause an offensive or objectionable effect beyond the boundary of the property of origin. If these conditions cannot be met, resource consent is required.

Burying animal carcasses and offal

The use of land for an offal pit and the associated discharges onto/into land where a contaminant might enter water is permitted if:

1. The discharge is to a pit that:
 - has a volume <50m³; and
 - is sited/designed to prevent surface runoff entering the pit; and
 - is designed to prevent animals from accessing the pit; and

2. the discharge is only dead animals/ animal parts produced on the property where the pit is located; and
3. no more than one pit is constructed/used per 100ha of property area/year; and
4. when any pit is filled to within 0.5m of the original land surface, or no longer used, it must be filled with at least 0.5m of soil or covered with an impermeable lid; and
5. no discharge occurs:
 - within 100m of a surface water body, a bore used for water abstraction, the site boundary, or the Coastal Marine Area; or
 - within a Community Drinking-water Protection Zone; or
 - unless there is >3m of soil or sand between the point of discharge and the seasonal high water table level; or
 - onto/into an archaeological site; or
 - within any area or zone identified for residential, commercial or industrial purposes.

If these conditions cannot be met, resource consent is required.

POLICY AND PLANNING

Plan Change 7

Recommendations from the Hearing Panel on PC7 will be presented to ECan Councillors for approval in August, and not July as we had anticipated. On receipt of PC7, OWL management will work with our advisers and the OWL Board to fully understand the implications to OWL and shareholders. It is likely that we will arrange some shareholder meetings to present this information to you – keep an eye out for meeting/workshop notices in late August/early September.



ESSENTIAL FRESHWATER

Freshwater Farm Plans

The Government has changed the Resource Management Act 1991 to include a requirement that farms have a Freshwater Farm Plan (new Part 9A). All farms above 20ha need to have a Freshwater Farm Plan (5ha for hort). These differ from the existing FEPs required under the Land and Water Regional Plan. Whereas the existing FEPs are 'back-loaded' and place a lot of emphasis on the audit process, the Freshwater Farm Plans are more 'front-loaded', focusing more on the certification of the actual plan.

The Freshwater Farm Plan concept does not easily 'mesh' with the existing LWRP framework, and as such the LWRP will need to be reviewed. This will take some time (likely a number of years away).

The key message is 'just keep doing what you are doing'. ECan is working through how the implementation happens in integration with existing plans. The time will eventually come for Freshwater Farm Plans, but don't lose sleep over this requirement. OWL is involved in a number of forums regarding this, and we will ensure your transition to the Freshwater Farm Plans is as smooth as possible.

Wetlands Protection

The Essential Freshwater package aims to halt the ongoing loss of wetlands and their values. The National Environmental Standard for Freshwater (NES-F) includes controls on activities within 100 metres of a natural wetland. In addition, the Stock Exclusion Regulations 2020 include controls on stock access to natural wetlands.

We understand ECan is going to implement a campaign intended to engage, educate and enable farmers to be compliant in this space. OWL will also ensure we pass any information we receive on to shareholders and water users.

Synthetic N Cap

The NES-F limits the discharge of synthetic nitrogen fertiliser to land, and requires reporting of fertiliser use. Under the NES-F, to be a permitted activity (i.e., no resource consent

required), the amount of synthetic nitrogen fertiliser applied to land in pastoral land use will be capped at 190kgN/ha/year from 1 July 2021. Furthermore, dairy operations are required to report on their use of synthetic nitrogen fertiliser annually.

We understand there is going to be some national guidance released soon in terms of the implementation of this rule and how the fertiliser use should be recorded. In the meantime, it is important farmers understand that the 190kgN/ha/year is a cap, and assume that non-compliance will not be accepted by ECan.

Intensive winter grazing (IWG)

This year, the farming sector has the opportunity to demonstrate it can manage intensive winter grazing while protecting the environment. Regional councils are required to monitor winter grazing, but the implementation of NES-F winter grazing regulations have been postponed until 2022. As a sector, we need to show we can successfully graze crops without excess run-off of sediment, e-coli, and nitrogen, and maintain animal welfare, even in adverse weather events.

Planning underpins successful IWG, and this starts from the moment you consider what type, and where your crops will be sown. A number of IWG planning templates have been developed for your use by industry groups, covering planning and management to avoid and mitigate negative effects, and techniques to look after animals, soils and water.

ECan has asked that FEPs are amended to include IWG as a management area so they can be assessed in an audit, but will NOT contribute to your Audit Grade for 2021/22. However, if an issue is apparent, it is likely its effects will be assessed through nutrient, cultivation and soils management. OWL currently has IWG practices within the Nutrient Management section of the FEP which will remain for now. However, IWG will also be added to the end of your FEP if applicable. In addition to what you are familiar with, consideration of animal welfare, and what steps are included in your plan for an adverse weather event, are included.

Despite the update to the left, OWL is aware that on 1 July 2021, a Members Bill was introduced to Parliament that seeks to remove the ability for certain agriculture regulations to be set by central government and devolves these guidelines to regional councils.

In particular, the Bill seeks the following amendments to the regulations:

- (1) Revoke the Resource Management (Stock Exclusion) Regulations 2020 (2020/175).
- (2) Revoke subparts 3 and 4 of Part 2 of the NES-Freshwater (related to intensive winter grazing and application of synthetic nitrogen).

We don't know how this will be received or the timing of its hearing, but we will keep shareholders informed of how this Bill progresses through Parliament and the implications, should it pass, for your farming operations.

INTENSIVE WINTER GRAZING

MANAGEMENT OBJECTIVE:

Intensive winter grazing management is planned, and stock are wintered in a way that mitigates identified risks to the environment and animal welfare

TARGET 1:

A written winter management plan is prepared early in the season prior to planting

TARGET 2:

The risks associated with each wintering block are considered based on: soils, waterbodies, groundwater, slope, stock class and fodder crop, mahinga kai, and critical source areas

TARGET 3:

Appropriate mitigations are implemented for each wintering block based on their inherent risk

TARGET 4:

The likely impact of adverse weather events is considered, and contingencies are planned and made available to manage environmental and animal welfare risks in these situations

Winter grazing/ Forage crop grazing | Beef + Lamb New Zealand (beeflambnz.com)

Wintering - Information to assist with wintering (dairynz.co.nz)

Winter grazing | Environment Canterbury (ecan.govt.nz)

SCHEME ENHANCEMENTS AND OPPORTUNITIES

Lake Opuha Island Logging

Logging of the Lake Opuha Island was carried out successfully despite the rain event at the end of May. The team from Harmer Earthmoving Ltd worked tirelessly prior to, and during, the rain to fell the plantation trees on the island and transport them to the lake edge, before the rain came and the lake filled. We cannot commend them enough for their efforts. The felling of these trees has been on our radar for some time but was further prompted by ECan which was keen for the trees to be removed due to the environmental threat they posed as a seed source for wilding pine in the surrounding catchment. OWL management worked with ECan and MDC to get the required authorisations in a very short time, so it was a great team effort. We will work with Orari Nursery to source a good stock of natives for the island to plant over a 5-year period.

The photos below were taken by Penny Williams, before and after the logging/rain.



Lake Opuha before.



Lake Opuha after.

Gravel Consent

While the opportunity to remove gravel from the lakebed during the low lake period has passed, we are progressing with a consent application for the extraction of gravel from the bed of Lake Opuha, with the ultimate aim of increasing capacity in the lake over time. We are currently working to determine the most effective and efficient way of managing this to ensure maximum amounts of gravel can be extracted when conditions are right, without having any adverse effects on the environment or recreational opportunities. It is anticipated that agreements with excavators will sit alongside the resource consent, and will dictate the bounds within which the extractors can operate.

NON-IRRIGATION USE OF SHARED WATER

We are aware of a small number of shareholders who utilise shared water for uses other than irrigation. OWL's Terms of Supply, Clause 11.14 (Use of Water only for Irrigation / Approved Uses) states that:

"The Shareholder shall only use the water for irrigation and will not use the water for any other purpose (including as potable water, for generation of electricity or any other purpose) except with the prior written consent of the company, which consent may be arbitrarily withheld."

Written approval of the OWL Board MUST, therefore be sought for any use of shared water other than for irrigation. Please also note that under the Terms of Supply, shareholders acknowledge and accept that the water might not be potable and might not be suitable for use by stock or for any purpose except irrigation.

CONSENT-RELATED UPDATES

Annual compliance monitoring

We are pleased to report we have met all timeframes for annual compliance monitoring to ECan on our key consents in the past 12 months. While we have not been fully compliant against all our consent conditions, this has largely been due to instrumentation failure, and we are implementing system improvements (e.g., monitoring alarms) to manage and minimise any issues going forward.

MR1 meter upgrade

Major asset enhancement is occurring at the Kakahu Pipeline Control Valve site during the winter maintenance period, including upgrades of the physical valve and its controls, pipeline flow meter, site communications, and improving the safety of the worksite. This will enable the reliable monitoring and control of the asset and ensure it is a safe and fit for purpose asset site. From an environmental perspective, this will enable OWL to meet the flow meter verification requirements of the 2010 Measurement Regulations.

Farming Land use Consents

OWL considers it vitally important to protect the reputation of the scheme and ensure it's compliant in all aspects of its operation. This includes only delivering water to shareholders who hold a farming land use consent where they are required by regulation to have one. From the 2021/22 irrigation season, **in accordance with the terms of the Water Agreement**, irrigation water will not be supplied to a shareholder who does not meet these regulatory requirements.

Positively, the vast majority of shareholders who meet the requirements to hold a farming land use consent, have either been issued a consent, or are in the application process with ECan. However, we are aware of a small number of shareholders who have failed to engage in this process, and these shareholders will soon be issued letters requiring them to comply prior to 2021/22 irrigation commencement.