

Policy – Authorised Land Use

1 Policy Background

MHV Water hold a land use and discharge resource consent CRC185857 to manage the effects of nitrogen loss from shareholder properties and includes a catchment nitrogen load limit, issued 13th May 2021. 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. Furthermore, MHV Water are compelled to implement a Remediation and Response Plan if water quality trends deteriorate within the catchment.

In order to ensure the scheme remains on track with meeting catchment water quality outcomes and compliance with their nitrogen discharge consent, MHV Water have developed processes to identify a property's Authorised Land Use (ALU) and how they apply to vary that land use (Farm Activity Variation Application – FAVA).

This Policy replaces all previous FAVA process and environmental Directives made by the Board and formally documents the Board Directive made July 2020, which approved the process required to prepare an Authorised Land Use and the associated decision making framework for FAVAs. This policy formalises the ALU and FAVA processes developed to manage the scheme nitrogen load and is given weight by the Terms and Conditions of the Water Supply Agreement (WSA).

2 Purpose

The intent of the policy is to ensure MHV complies with its' Land Use and Nutrient Discharge Consent CRC185857, provides Shareholders clear boundaries in which they can operate their businesses and details the expectations required for shareholders who wish to expand or develop their operations.

3 Scope

This policy applies to all Shareholders.

4 Triggers for Review of Policy

The ALU and FAVA processes will need to be reviewed regularly to take into consideration the following:

- Changes to resource consent conditions
- Implementation of National Environmental Standards for Freshwater (2020) and National Policy Statement for Freshwater (2020)
- Deteriorating trends in water quality within the Hekeao/Hinds Catchment
- Changes in market dynamics
- Recommendations from the Environmental Decisions Panel
- Recommendations from the Remediation and Response Plan
- In response to reviews of internal policies and procedures

Any changes to this policy must be approved by the MHV Board prior to implementation.

5 Policy Details

The company requires compliance with all aspects of this policy so that adherence to the land use and discharge consent can be maintained and improved environmental outcomes can be achieved/demonstrated.

6 Definitions

Term	Definition
Authorised Land Use (ALU)	A summary of the land use for a Property reflecting activities which were permitted to occur between 2014-2020
Certified Nutrient Management Advisor (CMNA)	Means a person accredited under the Nutrient Management Advisor Certification Programme
Effective Area	Land within a property on which farming activities are undertaken
Environmental Decisions Panel (EDP)	An independent panel appointed by the Board to make FAVA decisions in line with MHV policy
Farm Activity Variation Application (FAVA)	Request for permission from the scheme to vary land use in a manner which may increase N losses in the long term
Farm Environment Plan (FEP)	Plan to enable farmers to identify and mitigate the on farm risks associated with their farm system to drive improved environmental, cultural, social and economic outcomes
Good Management Practice (GMP)	As defined in the document Industry Agreed Good Management Practices relating to water quality (September 2015)
Nutrient Discharge Allowance (NDA)	Is the nitrogen loss limit for a property used to compare the impact of a FAVA application
Permitted Land Use (PLU)	An Authorised Land Use prepared to reflect permitted land use for a specified property following approval of a FAVA by MHV.
Property	Means any contiguous area of land, including land separated by a road or river, held in more than one ownership, that is utilised as a single operating unit, and may include one or more certificates of title
Retrospective Farm Activity Variation Application (FAVA)	A FAVA application is required where a land use change occurred <u>after</u> 1 June 2018 without approval from the company.
Sensitive Receptor	Means areas of wetland, surface water bodies and riparian areas, sites of cultural significance (as may be further defined in consultation with Te Rūnanga o Arowhenua) and, in the case of any land located within a Community Drinking Water Protection Zone, the Community Drinking Water Supply.
Significant Change	In relation to the farming activity on a Property means: <ul style="list-style-type: none"> (a) an increase in the area irrigated by more than 10 hectares; (b) an increase in the area used for dairy farming (being the use of land by milking dairy cows) (whether irrigated or not) by more than 10 hectares;

	<p>(c) any increase in the area used for intensive winter grazing (being the grazing of livestock on annual forage crop at any time in the period 1 May to the following 30 September); and</p> <p>(d) any increase in the area on a property of dairy support land (being the farming of non-milking dairy cows, including heifers),</p> <p>as compared to the maximum area used on that Property in any year (being the period of 1 July to 30 June) in the period 1 July 2014 to 30 June 2019¹.</p>
The Board	The Board of directors of MHV

6.1 Authorised Land Use (ALU)

The ALU is determined by using the Farm Environment Plan (FEP) and Nutrient Budget data provided to MHV during the course of the previous nutrient discharge resource consent CRC183851² to identify maximum permitted land use parameters. For the avoidance of doubt, the permitted land use excludes one-off abnormalities as a result of biosecurity or climate extremes and any non-approved intensified land use.

The ALU identifies:

- Significant change triggers
- Other potential FAVA triggers for a property, based on the maximum permitted seasonal land use which has occurred under CRC183851
- If a retrospective FAVA is needed
- A permitted land use which can be audited and easily monitored
- If property is sold or leased the parameters within which the farming activities may be continue by the purchaser or leasee without FAVA approval by MHV

The permitted seasonal maximum irrigated area, winter grazing area, stocking rate, supplements and fertiliser usage are recorded. All Properties will have their ALU confirmed by the end of Dec 2021, however, the information is available upon request prior to this date if required for a land sale or other requirement.

Where a Farm Activity Variation was approved for a property prior to 13th May 2021, the implemented farm system subsequent to the approval will be included for the Authorised Land Use.

¹ For clarity, any increase in irrigation area, or the area of land used for Dairy Farm Land and Dairy Support Land for the purpose of assessing if a change is “significant” is defined based on the primary land use mapped for the property in the MHV QGIS mapping system at the commencement date of resource consent CRC185857 (13th May 2021) as confirmed by the Authorised Land Use.

² Previously CRC121664

Where a Farm Activity Variation has been approved after 13th May 2021, a Permitted Land Use (PLU) will be prepared to reflect the approved farm system. However, the risk level of any future FAVA will be assessed against the original Authorised Land Use.

Shareholders will have the opportunity to review ALUs and will be provided with 15 working days to provide further objective evidence to correct any errors.

6.2 Significant Change

Resource consent CRC185857 introduce a number of requirements to manage the effects of “significant change”. These include:

- All Significant Changes must first be approved by MHV Water
- MHV Water cannot grant approval for a Significant Change unless:
 - Change does not result in an increase in catchment contaminant load or concentration relative to what occurred at 2 September 2020
 - Any adverse effects on sensitive receptors are avoided remedied or mitigated
- Additional reporting and auditing requirements for significant changes

This policy describes the steps necessary to manage Significant Changes.

6.3 Farm Activity Variation Application (FAVA)

A FAVA is required where a Shareholder seeks a Significant Change or to vary the Authorised Land Use (ALU) on their Property for activities at risk of increasing nitrogen losses in the long term. Examples of variations in land use which are not “significant” under the consent, but require approval include, but are not limited to:-

- Long term increase in stocking rate relative to what was permitted
- Increase in irrigated area less than 10 ha
- Any intensification of your dairy system (e.g. move from Dairy system 2 to Dairy system 3)
- Change in land use
- Increase in effective area

Where a proposed variation meets at least one of the above criteria (either for a new property entering the scheme or for an existing property), the change is long term, and likely to result in an increase in nitrogen losses, then the applicant will need to apply for a Farm Activity Variation.

A **Retrospective FAVA** is required where a land use change has occurred **after 1 June 2018** without express approval from MHV Water Ltd.

For the avoidance of doubt, a retrospective FAVA is required to maintain any land use change which required approval by MHV under CRC183851 after 1 June 2018, unless approval has already been given by MHV.

If a Shareholder has not yet had their ALU confirmed and seeks to make any change to their farm system it is the Shareholders responsibility to call the MHV Team to confirm they would not trigger a FAVA prior to making any change.

A number of farming activities are covered by the new rules in the National Environmental Standards for Freshwater (2020). These activities are not presently covered by our Discharge Consent, as such, Shareholders may also require separate consent approval from Environment Canterbury if they are looking to change or vary their land use. We will advise you if you require a separate consent, and such consent would need to be approved by Environment Canterbury prior to your FAVA proceeding.

6.3.1 FAVA Risk Assessments

FAVA Assessments are completed in accordance with the scale of the risk of the proposed activity. Significant change and “High” risk land use variations have a higher threshold for acceptance than “Medium” or “Low” risk applications and require approval by the Environmental Decisions Panel (EDP). “Medium” and “Low” risk applications are reviewed by the Environmental Team and approved by the MHV Water Chief Executive. “Permitted” changes are confirmed by the Environmental Team.

Risk level of variation applications are defined below and are relative to farming activities described in the Authorised Land Use.

Permitted	Low Risk	Moderate Risk	High Risk	Significant Change
<p>Confirmation by Environmental Team</p> <p>Increase in irrigated area by up to 10 ha, provided following conditions are met:</p> <ul style="list-style-type: none"> a. New irrigation is spray or sub-surface b. Property already audited as being an “A” c. No other variation to land use occurs 	<p>Approval by MHV Water CE</p> <ul style="list-style-type: none"> • Less than increase 250 RSU on land not grazed by dairy animals 	<p>Approval by MHV Water CE</p> <ul style="list-style-type: none"> • Between 250-750 RSU increase on land not grazed by dairy animals • Increase below 3% in RSU on land grazed by (or proposed to be grazed by) dairy animals • Effective area increase less than 10 ha • Increase in irrigated area less than 10 ha, which does not comply with permitted conditions. 	<p>Recommended by EDP, Approved by Board</p> <ul style="list-style-type: none"> • Increase in RSU more than 750 RSU on land not grazed by dairy animals. • Increase above 3% in RSU on land grazed by (or proposed to be grazed by) dairy animals • Increase in effective area greater than 10 ha • Change in land use • Any change on a property with, or adjacent to, a sensitive receptor 	<p>Recommended by EDP, Approved by Board</p> <ul style="list-style-type: none"> • More than 10 ha new irrigation • More than 10 ha dairy farm land • Any increase in winter grazing • Any increase in dairy support land

6.3.2 FAVA Review Criteria

6.3.2.1 Permitted

Applications for less than 10 ha of new irrigation are assessed against compliance with the permitted conditions. Applicants will need to provide evidence to confirm the following:

1. New irrigation will be spray or sub-surface
2. Area of new irrigation less than 10 ha relative to what occurred at September 2020
3. Minimum “A” audit status or equivalent
4. No other change in land use will occur.

Permitted Activity Confirmation can be provided within 10 working days of receiving all relevant information.

6.3.2.2 Other FAVA

All other FAVA applications consider the following:

- If the change results in an increase in N losses greater than the Nitrogen Discharge Allowance (NDA) or risk non-compliance with scheme N load limit³
- The Property is able to meet reduction targets
- The Property does not rely on an unauthorised intensification on another property (e.g. move winter grazing somewhere else)
- Regulatory requirements are complied with
- The variation does not have a negative impact on a sensitive receptor
- Environmental performance history of the applicant
- The proposed variation aligns with the scheme’s overall objectives, including promotion of continuous improvement and catchment outcomes being met
- Sufficiency of proposed mitigations to ensure the overall catchment outcomes are met

Variations in land use which are deemed “Significant Change” or “High Risk” must also be able to demonstrate the following:

- The activity will not result in an increase in catchment contaminant loads or concentrations relative to what occurred at September 2020⁴.
- Adverse effects on sensitive receptors are avoided, remedied or mitigated

All FAVA assessments consider the evidence provided to demonstrate the above criteria are met and are scored in accordance with the Farm Activity Variation Application Standard Operating Procedure.

“Significant Change” and “High Risk” FAVA applications must be prepared by a Certified Nutrient Management Advisor (CNMA), with experience in farm systems and be provided for assessment no less than 20 days prior to a

³ Generally no increase in N load according to The Matrix. Approval may be granted where the change results in an increase in N loss reported using The Matrix, provided the following conditions are met:

1. Compliance load is less than 90% of the consented nitrogen limit
2. Property is currently managed at GMP or better
3. Matrix N losses for the property are below the 15th percentile for the scheme as calculated from the most recent compliance load calculation
4. Proposed Matrix N losses are within 1T and still less than 15th percentile loss.
5. Proposed activity complies with NDA

⁴ Generally represented by the effects of the land use permitted to occur at September 2020

Board meeting. The schedule of these are available on our website, www.mhvwater.nz. Additional time may be required for particularly complex applications which require external review or advice.

All other FAVAs will be assessed within 15 working days of receipt of a complete application.

6.3.2.3 FAVA Approval Conditions

Conditions may be placed on FAVA approvals to ensure the following:

- a) Implemented farm system is consistent with approved proposal
- b) Regulatory requirements are met
- c) Actions required to comply with current and future scheme resource consents and policies
- d) Proposed mitigations are actioned

6.4 Nitrogen Discharge Allowance

A Nitrogen Discharge Allowance (NDA) is a nitrogen load calculated using OverseerFM™ based on the nutrient budgets used to establish the ALU or PLU, standardised to Good Management Practice (GMP). The NDA is only for use in the FAVA decision making process.

The NDA process includes a robustness check of the nutrient budgets on file used for the ALU or PLU. Nutrient budgets which are not robust or reflective of the normal farming operation⁵ are excluded from use in the NDA.

The Shareholder will have an opportunity, at their cost, to:

- rectify errors and/or update nutrient budgets which are not robust
- Prepare new nutrient budgets for years where no budget had been prepared

Any new information provided for the completion of the NDA calculation will need to be able to be verified.

6.4.1 NDA for New Land

Where new land joins the scheme, sufficient information will need to be provided to establish the FAVA triggers and NDA for the land, including, but not limited to:

- YE2020 Overseer nutrient budget
- 2020 Irrigation and farm system maps
- 2009-13 Baseline Overseer nutrient budgets
- 2009-13 Baseline irrigation and farm system maps
- Confirmation of the following land use activities within the reference period:
 - Maximum area of intensive winter grazing⁶
 - Maximum area of irrigation
 - Maximum area of land used for dairy support activities
 - Maximum area of land used for dairy farming activities
- Current FEP Audit status

⁵ Such as impacted from *force majeure* events

⁶ As defined by Section 3 of the National Environmental Standards for Freshwater 2020

- Other information as required

6.4.2 NDA for Farming Enterprises

Where there are multiple properties within a Farm Environment Plan, nutrients, irrigated area and intensive winter grazing area may be aggregated, provided the details have been collected for each individual property within the enterprise.

6.4.3 NDA for Leased Land

Where land is leased, the NDA and FAVA triggers will be calculated for the area of land leased and may be aggregated as a farming enterprise until such time as the lease is expired.

6.4.4 NDA where FAVA Approved

Where a FAVA has been approved between 1st June 2018 and 13th May 2021, the NDA for the property will be based on the Year End nutrient budgets provided subsequent to the FAVA approval, standardised to Good Management Practice.

6.4.5 GMP Standardisation of Reference Nutrient Budgets

6.4.5.1 *Soils and Climate Details*

NDA nutrient budgets will be updated, if necessary, to ensure they are consistent with S-Maps and are allocated appropriate climate details.

6.4.5.2 *Irrigation*

All irrigation shall be modelled in accordance with the table below prepared by Ian McIndoe on behalf of IrrigationNZ to meet 80% irrigation efficiency⁷. Borderdyke irrigation defaults to the Pivot parameters as it is unable to meet the 80% efficiency requirements for the soil types within the scheme.

⁷ McIndoe, Ian *Statement of Evidence of Ian McIndoe*, Plan Change 5 of the Land and Water Regional Plan Hearing (22 July 2016) <https://api.ecan.govt.nz/TrimPublicAPI/documents/download/2941956>

Figure 1: Irrigation Efficiency GMP Modelling Rules

Plant Available Water capacity (mm)	Irrigator type	Irrigation trigger point	Application depth (mm)	Return period (days)
30	Pivot	55%	15	3
40		60%	15	3
50		65%	15	3
60		59%	15	3
70		62%	15	3
80		65%	15	3
90		64%	15	3
100		60%	15	4
110		68%	15	4
120		65%	15	4
140		69%	15	5
160		72%	15	5
200	77%	15	5	
<80	Lateral move	As per centre-pivot		
80		65%	26	6
90		64%	26	6
100		66%	40	9
110		68%	40	9
120		65%	40	12
140		69%	40	12
160		72%	40	12
200		77%	40	12
<80	Rotary booms, linear booms, guns	As per centre-pivot		
80		50%	50	10
90		50%	50	10
100		50%	50	10
110		50%	50	10
120		55%	45	12
140		55%	45	12
160		55%	45	12
200		60%	45	12
<60	K Lines, long laterals, spraylines	As per centre-pivot		
60		55%	33	7
70		55%	33	7
80		60%	33	7
90		60%	33	7
100		50%	65	14
110		50%	65	14
120		50%	65	14
140		55%	65	14
160		60%	65	14
200	68%	65	14	

6.5 Audits and Nutrient Budgets

All approved FAVA applications will trigger an FEP audit within 12 months of the variation being approved. As part of that audit process, MHV requires:

1. Year End Overseer nutrient budgets to be prepared for FEP Audits from 2022-23 Audit Season
2. Shareholders to maintain an active OverseerFM account

7. Decision Making Process

With a clear policy framework, the recommendation process for all “High” Risk and “Significant Changes” will be delegated to an independent group with the appropriate skillsets. This is to protect against any perceived conflicts. The final decision is made by the MHV Board.

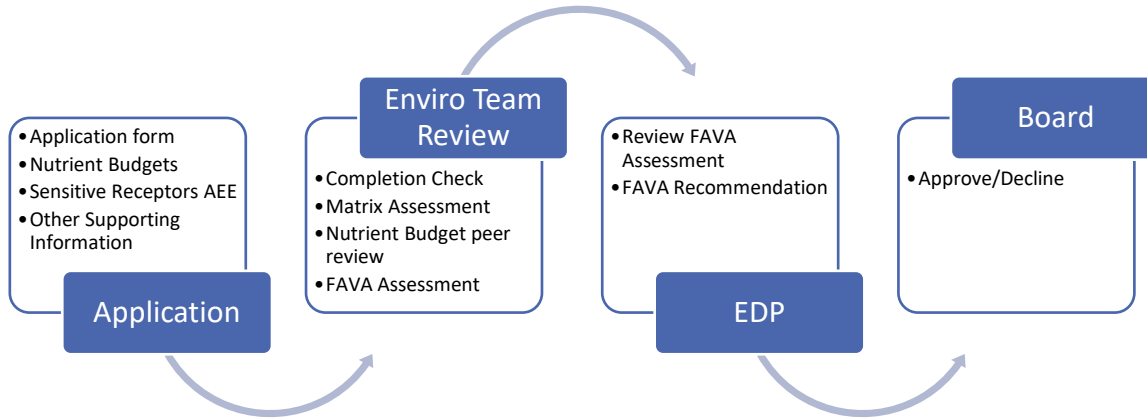
The Environmental Decision Panel (EDP) is appointed by the Board of MHV. The EDP objective is to support and to make independent recommendations in line with MHV Policy for Farm Activity Variation Applications. Recommendations from the EDP will be given a high weighting by the Board.

The members of the EDP comprise of two professionals in each of the following areas, Legal, Farm Systems and/or Nutrient Budgets. Additional skills can be co-opted onto the EDP at the discretion of the MHV Board.

A quorum of three panel members is required for a meeting to proceed. At least one from each discipline required to review and provide feedback before the EDP recommendation is confirmed

The FAVA applicant details will be disclosed to the EDP prior to the circulation of information and every EDP member must confirm they have no conflicts that would arise directly or indirectly as a result of sitting on that specific panel. Where there is any potential conflict this will be assessed by the CEO to confirm if the panel member participation is appropriate in that instance. Members of the EDP will be rotated on each panel with half yearly consistency sessions where all members participate.

7.1 EDP Process – “High Risk” and “Significant Change” FAVA



The delegation to the EDP will be reviewed following the first twelve months of the inception of the panel. Any delegation will be made by the MHV Board.

8. Review and Sign Off

Revision	Status	Date	Prepared by	Checked	Approved
00	FINAL	Nov 2020	MB/EH	MB	MHV Board
02	FINAL	Feb 2020	MB/JN	MB	MHV Board – 17/08/2021
03	FINAL	Oct 2021	EH	MB	MHV Board - 12/10/2021
04	FINAL	Jan 2022	EH	MB	MHV Board – 25/01/2022

9. Related Documents

- Water Delivery Policy
- Water Supply Agreement
- Farm Activity Variation Application Assessment Standard Operating Procedure