

Form 'B' – Assessment of Environmental Effects Tukituki Production Land Use Activities

This form is for farms in the Tukituki Catchment only.

Before you apply for resource consent please ensure you have:

- A Farm Environmental Management Plan (FEMP) that accurately reflects your current and proposed farming activities; and
- Overseer Nutrient Budgets (published to the Council using OverseerFM).

If you do not have both of these, you are unlikely to be able to complete your resource consent application to a level that will be accepted by HBRC. Please contact the Consents Advisor at HBRC before proceeding.

Guidance notes are available to assist you to make an acceptable application. The guidance is also available online.

Applicant Name: Tukituki Awa limited (from Form 'A' Q1.4)

All information Council holds is 'official' public information under section 2 of the Local Government Official Information and Meetings Act 1987 (LGOIMA), as such any and all information may be requested by a third party.

We understand some of what is contained in your FEMP is commercially sensitive information, that you would not like to be made freely available to the public. You can that your FEMP is withheld from the public in Q19 of this form. If you do request your FEMP to be kept confidential you must answer the FEMP related questions in Application Form B fully, so any person reading the consent application form can gain enough understanding of the proposed activity and its effects.

If you do not require your FEMP to be kept confidential you can refer to the sections in your FEMP that answer the relevant application Form B questions, instead of repeating the information. Where you want to do this, please provide details of where in your FEMP the relevant information can be found (e.g. on page 4, under the heading Phosphorus Mitigations).

Sections A, B, C, H, I and K must be completed in full by all applicants. If your FEMP is to be withheld from public release, you must also fill in the additional sections in full where they are applicable to your farm.

8 Identify the activities you require resource consent for? (there may be more than one)

Consent Required? (Y or N)	Activity	Explanation/Description of when consent is required
N	Stock Exclusion	You have not, or will not have, excluded all livestock (excluding sheep) from the beds and margins of all lakes, wetlands and rivers/ streams within your property/enterprise by 1 June 2020 as required by Rule TT1(e) and (f)
N	Exceed LUC Nitrogen Leaching Rate	The nitrogen modelled to leach from your property/enterprise exceeds the Nitrogen Leaching Rate specified in Table 5.9.1D of Plan Change 6 - Rule TT1(d).
Y	Sub-catchment exceeds limits	Your property is located within a sub-catchment that exceeds the limits for nitrate-nitrogen or DIN (Dissolved Inorganic Nitrogen) – Rule TT(1)(j)
N	Stock crossings	You have not, or will not have by 1 June 2020, installed a permanent facility (i.e. a bridge or culvert) on all formed stock races that cross permanent and intermittent rivers/ streams as required by Rule TT1(i)
N	Intensive winter grazing ¹	Intensive winter grazing that does not meet one or more of the conditions of Regulation 26 of the NES FW. Tick the conditions that you cannot meet (it may be more than one): <input type="checkbox"/> area of farm used for intensive winter grazing will exceed 50 ha or 10% of the farm. <input type="checkbox"/> mean slope of a paddock used for intensive winter grazing exceed 10 degrees. <input type="checkbox"/> pugging exceeds 20 cm in depth at any one point <input type="checkbox"/> pugging of any depth covers > 50% of the paddock <input type="checkbox"/> Separation distance to waterways (5m) not met <input type="checkbox"/> Replanting before 1 October each year not met
N	Expansion of intensive winter grazing area	Expansion of an intensive winter grazing area that does not meet Regulation 29 of the NES FW: Tick the conditions that you cannot meet: <input type="checkbox"/> Land on the farm has not been used for winter grazing within the period 1 July 2014 to 30 June 2019. <input type="checkbox"/> The area of the farm used for winter grazing exceeds the maximum area of the farm previous used for winter grazing in the period 1 July 2014 to 30 June 2019.

¹ Intensive Winter Grazing: means grazing livestock on an annual forage crop at any time in the period that begins on 1 May and ends with the close of 30 September of the same year.

B: FARM ENVIRONMENT MANAGEMENT PLAN (FEMP)

(THIS SECTION MUST BE COMPLETED IN FULL)

9 FEMP attached to application? Yes FEMP version and date: V2 October 2021

10 What date was your FEMP first prepared? October 2019

11 Who initially prepared your FEMP? RDAS

12 Are they a HBRC Accredited FEMP Provider? Yes No

13 When was your FEMP reviewed? 2021 or Not reviewed

13.1 What date was your FEMP reviewed? October 21

13.2 Who reviewed your FEMP: Landvision limited

13.3 Are they a HBRC Accredited FEMP Provider? Yes No

14 Has there been any significant change since your FEMP was prepared/reviewed?

Yes No if Yes please provide detail: _____

15 Have any of the actions identified in your FEMP been completed? Yes No

15.1 If Yes, please detail what actions, and when they were completed below.

Action	Description (what was done, where),	Date completed
Installation of soil moisture monitoring equipment	Soil moisture probes established at two sites on farm covering key soil types	08/2018
Irrigation uniformity check	Check completed by HBRC	19/20 season
Maintain residual covers on hill country	Maintain post grazing covers over 1400Kg dm to minimize soil disturbance and potential loss	ongoing
Annual reviews of effluent system		ongoing
Exclude stock from: Stream on new block,		2020 for both

Natural lake on new block		
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16 All information Council holds is 'official' and as such may be requested by a third party in accordance with the Local Government Official Information and Meetings Act 1987 (LGOIMA). LGOIMA has some provisions for the withholding of this information, please indicate if these apply to your FEMP

Tick:

- I do not request the withholding of my FEMP; Or
- I consider that disclosure of my FEMP could result in:
- Prejudice to the commercial position of the property, and/or
 - Improper gain or improper advantage by a third party, and/or
 - The protection of natural person's privacy being breached, and/or
 - Other _____ (s6/7 of LGOIMA)

I Ricky Jensen, Director, Tukituki Awa Limited ask Council to consider the above and confirm that it accepts the FEMP subject to an obligation of confidence and that it will consult me before making it, or any part of it available to any third party.

NOTE: if you request that your FEMP remains confidential you must fully complete this application form in detail. Failure to do so may mean that the Council is unable to accept your application for processing under Section 88 of the RMA.

C: NUTRIENT BUDGET

(THIS SECTION MUST BE COMPLETED IN FULL)

- 17 What date was your Nutrient Budget prepared? 20/21
- 18 What version of Overseer was used to prepare your Nutrient Budget? FM-
- 19 Who prepared your nutrient budget and are they a Certified Nutrient Management Advisor (CNMA) ? Grant Bickley(CNMA)
- 20 Was your Overseer Nutrient Budget prepared in accordance with the Overseer Best Practice Data Input Standards? Yes No
- If No please advise why _____
- 21 Have you modelled any farm system changes or mitigation measures set out in your FEMP? Explain the nutrient loss reductions and associated timeframes proposed.

FERTILISERS											
MANUFACTURER/MATERIAL	NAME	APPLICATIONS	TOTAL APPLIED (KG)	N	P	K	S	CA	MG	NA	
Ravensdown cropping	Ammo 31	24	14,507	4,454	-	-	2,089	-	-	-	
Ballance other	N-rich urea	56	29,178	13,422	-	-	-	-	-	-	
Ballance super	Serpentine super 10K	3	37,075	-	2,002	3,708	2,484	4,894	1,483	-	
Ballance other	Coated urea	6	23,728	9,017	-	-	-	-	-	-	
Ravensdown cropping	Cropmaster 15	1	4,200	630	420	420	323	-	-	8	
Soluble	Soluble fertiliser	1	-	1,050	231	-	273	504	126	-	
Total			108,688	28,572	2,653	4,128	5,169	5,398	1,609	8	

Figure 1: fert usage from pre 2015

FERTILISERS											
MANUFACTURER/MATERIAL	NAME	APPLICATIONS	TOTAL APPLIED (KG)	N	P	K	S	CA	MG	NA	
Ravensdown cropping	Cropmaster 15	1	1,200	180	120	120	92	-	-	2	
Ravensdown	Superphosphate	1	42,385	-	3,815	-	4,662	8,477	-	-	
Ballance	N-rich Urea	4	17,196	7,910	-	-	-	-	-	-	
Total			60,781	8,090	3,935	120	4,755	8,477	-	2	

Figure 2: current fert usage

We have been modelling and changing our operation consistently for the last 5 years. Our initial focus has been on achieving greater efficiency with our irrigation to achieve a grass-based system. Currently we crop 6 Ha for swedes over the summer but moving forward and assuming sufficient irrigation our intention is reduce or illuminate swedes and move to a direct drilled chicory crop to enable better water use efficiency and renewal of pasture.

the most significant change enacted thus far has been the reduction in urea (various forms) usage. As shown above our N use has decreased by around 20t as we have fine tuned the system. Going forward we would like to further improve our efficiency by using specialist

pasture species tactically (e.g. annuals to remove N surplus via higher winter growth). Continued access to reliable irrigation water is very important in the development of these strategies. Loss of irrigation due to higher minimum flows over the 19/20 and 20/21 seasons has forced us to purchase additional supplementary feed. This situation is unsustainable for the business. Going forward, if we cannot secure our irrigation water supply we will be forced back into a reliance of forage cropping (including winter crops) in order to achieve animal liveweights and condition scores that underpin our in calf rates and peak lactation. With secure water (tranche 2 application pending) we can remove the need for forage cropping and reduce imported silage which will further reduce our risk profile for N loss.

22 **Have you published your Nutrient Budgets to the Council** Yes No

Name(s) of published file(s):

Tukituki Awa Platform 21, Tukituki Awa Blackburn 1

See Guidance - Council requires nutrient budget data to be published using Overseer FM.

Step 1:					
Imported Nitrogen in fertiliser (kg/ha/yr)		28			
Imported Nitrogen in imported feed (kg/ha/yr)		27			
TOTAL Imported Nitrogen in Fertiliser and Feed (kg/ha/yr)	●	55	Stocking rate (RSU/ha)	● 15	
Imported Fert + Feed category		MEDIUM	Stocking rate category	MEDIUM	Highest category (1st step)
					MEDIUM

Figure 3: HBRC risk matrix for Tukituki Awa

D: STOCK EXCLUSION

(THIS SECTION MUST BE COMPLETED IN FULL IF YOU HAVE ASKED FOR YOUR FEMP TO REMAIN
CONFIDENTIAL)

(or tick if not applicable to your farm XXX)

- 23 **Please outline your work plan** to achieve stock exclusion, or the alternative measures you are proposing to undertake if stock exclusion is not being done?

Stock exclusion is complete. We have completed 1.4 K of new fencing as part of our first FEMP. This is on top of the approx. 7.5 Km of riparian river frontage and riparian fencing we already have in place.

- 24 **Please explain/justify the timeframes for the work/mitigations you plan to do** (Please provide specific comment about why works cannot be completed more quickly, and if possible, please provide evidence to support this).

In addition to the committed actions in our FEMP. We have attempted to establish riparian planting along the dry creek bed within the Tukipo catchment section of the farm. Unfortunately, due to drought this failed. We will try again in the winter of 2022. We intend to establish soil conservation planting on our runoff but again, have been waiting for suitable conditions where we are not in drought. Our hill country is gravel based. This means conditions need to be very favorable in order to successfully establish poplars.

Supporting evidence attached? Yes No

- 25 Please comment on whether or not you believe that you are taking all reasonable and practicable opportunities to reduce phosphorus losses from your property/enterprise, and provide reasons for your answer.

Yes – our key P loss risk is associated with sheet erosion from rolling hill country. To manage this we only apply maintenance fertilizer and seek to maintain minimum pasture residuals of 1400. This reduces soil disturbance during rainfall.

Our stock are fully excluded from streams, rivers and a small lake. The only time our stock come into contact with running water is to cross a stream at one access point. We actively manage this action to minimize potential disturbance. We use this crossing infrequently.

E: LUC EXCEEDANCE AND/OR SUB-CATCHMENT DIN EXCEEDANCE

(THIS SECTION MUST BE COMPLETED IN FULL IF YOU HAVE ASKED FOR YOUR FEMP TO REMAIN
CONFIDENTIAL)

(or tick if not applicable to your farm)

26 What is your property/farming enterprise's modelled Nitrogen leaching rate?

(estimated using a 4 year rolling average)

21.5kgN Ha (allocation 22) – this is based on an average year.

27 How was this calculated? (e.g. averaged from 4 years of overseer outputs)

averaged

28 Please explain/justify the timeframes for the work/mitigations you plan to do (Please provide specific comment about why the proposed works are the best practicable option compared to other possible options, and why they cannot be completed more quickly, and if possible, please provide evidence to support this).

Water bodies already fully fenced

N loss within allocation

Plans in place to actively manage and address potential soil loss and associated P loss.

Will replant dry watercourse in Tukipo catchment – failed due to drought.

Will continue to seek out efficiencies relating to N use, water use and pasture performance.

Will use the paddocks on farm within the Tukipo sub catchment as day paddocks thereby minimizing time animals spend in that area.

These are the identified opportunities on this farm.

Supporting evidence attached? Yes No what:

29 **Explain how you are taking all reasonable and practicable opportunities to reduce nitrogen losses** from your property/enterprise and provide reasons for your answer.

This farm has a strategy of continuous improvement. This has resulted in a farm system delivering top 5% performance based on fully feed animals. This system is designed to reduce reliance on winter cropping. Therefore, the area of winter cropping on this farm has reduced to nothing and it is proposed that we progress within an all grass (and supplements) system. A small amount(6Ha) of summer fed swedes is currently the only forage cropping.

Within the supplements used – baleage is made on the property for internal use and some maize grain is imported. Maize grain produces less urinary N than grass alone and is a key component in our strategy to minimize N loss where possible. A key objective is to maintain soil health and structure to facilitate an irrigated all-grass system that optimizes potential profits within the farms natural capital.

30 **For non-complying activities:** (Individual LUC Exceedance is >30%): Please outline what alternatives are possible that would reduce nitrogen loss from your farming operation and why these have not been chosen ?

N/A

31 Explain how you are taking all reasonable and practicable opportunities to **avoid additional phosphorus load** to the Tukituki River, as well as any steps you are taking to reduce your properties existing phosphorus loads

P loss from this property is (as modelled by Overseer) at 2kg per year. This indicates that the risk of P loss is moderate. The vast majority of this risk is attributed to our runoff (topography driven). As all our streams are fenced and we actively manage pasture residuals we are confident we are managing the risk of P loss well. We propose to review our Soil Olsen P status and monitoring to identify any further

opportunities for improvement. Olsen P is variable between 16 and 23 on runoff. Beyond Overseer derived outcomes – a planting program is being developed to enhance biodiversity around the dry stream bed that runs through our Tukipo block.

F: STOCK CROSSINGS

(THIS SECTION MUST BE COMPLETED IN FULL IF YOU HAVE ASKED FOR YOUR FEMP TO REMAIN
CONFIDENTIAL)

(or tick if not applicable to your farm)

- 32 Please outline your **work plan to install bridges/culverts**, or the alternative measures you propose to undertake if bridges/culverts are not going to be installed.

All required stock crossings are installed.

- 33 Please explain/justify the **timeframes for the work/mitigations** you plan to do (Please provide specific comment about why works cannot be completed more quickly, and if possible, please provide evidence to support this).

Supporting evidence attached? Yes No

- 34 Please comment on the reasonable and practicable opportunities that have or will be taken to **reduce phosphorus losses** from your property:

See 31

G: INTENSIVE WINTER GRAZING UNDER NES-FW (2020)

(THIS SECTION MUST BE COMPLETED IN FULL IF YOU HAVE ASKED FOR YOUR FEMP TO REMAIN CONFIDENTIAL)

(or tick if not applicable to your farm)

Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F) took effect on 3 September 2020. The NES-FW sets requirements of certain activities that pose a risk to water quality. Intensive winter grazing is now covered by Regulations contained within the NES-FW. **Intensive Winter Grazing** means grazing livestock on an annual forage crop at any time in the period that begins on 1 May and ends with the close of 30 September of the same year.

More guidance on the NES-FW is available on the MFE website here: <https://www.mfe.govt.nz/essential-freshwater-new-rules-and-regulations>.

35 **What is the maximum area of intensive winter grazing in any one year?**

_____ha

36 **Distance from intensive winter grazing areas to nearest surface water body?**

_____m

37 **Over what period will intensive winter grazing occur?** (e.g. 1 June – 30 September)

38 **Will the intensive winter grazing area be used every year?**

39 **If the answer to question 2.5 above is 'no', what frequency of use is proposed?**

40 **What class of animal is to be grazed on the winter grazing area?** (e.g. Breeding ewes, 2 y/o bulls, R2 heifers etc.)

41 What crops do you intend to grow on the winter grazing area?

42 What is the maximum number of animals to grazed at any one time (if multiple classes of animal, please state maximum number of each class)?

43 How will sediment/nutrient runoff to water ways be avoided?

44 Explain and list which Good Management Practices will be adhered to (the relevant part of your FEMP may be referenced, or you may reference relevant good practice guidelines such as <https://www.hbrc.govt.nz/assets/Document-Library/Information-Sheets/Land/Wintering-on-crops-in-Hawkes-Bay-July2017EMAIL.pdf>):

45 How will the winter grazing area be managed to reduce the risk of contaminants being mobilised by surface flows that run through the winter grazing area ?

46 What is the average slope of the intensive winter grazing area(s) (use to each paddocks name/identifier)

Paddock name/identifier	Average slope (degrees)

47 Where the slope of a paddock is greater than 15 degrees, provide a specific winter grazing paddock plan.

For information on how to prepare this plan: <https://www.hbrc.govt.nz/assets/Document-Library/Information-Sheets/Land/Wintering-on-crops-in-Hawkes-Bay-July2017EMAIL.pdf>

Please provide a farm map/plan that designated your **intensive winter grazing** area. This is the area within which **intensive winter grazing** will occur in any given year. Ensure that each **intensive winter grazing** paddock has a unique name/identifier.

H: ASSESSMENT OF ENVIRONMENTAL EFFECTS (AEE)

(THIS SECTION MUST BE COMPLETED IN FULL)

48 AEE Attached? Yes (Move to 40) Or

49 Please explain what actual, or potential effects your farming activity has, or may have, on the **environment** (including the land, surface and groundwater, air quality and the ecosystems (i.e. plants and animals) that live in that environment). You may refer to relevant sections of your FEMP:

Effects from this activity are less than minor.

Potential effects include:

- Effect of N leaching making its way to freshwater bodies – however as this farm system has modelled N loss at 22 kgN/ha (or less) (modelled on FM) which is within the allocation provided in PC6 (based 5.4.3), this is less than minor.
 - The potential effect of P loss from the property. Again, this effect as modelled by Overseer is moderate and being actively managed to eliminate developed critical source areas and transport pathways and is therefore, less than minor.
 - Considerable effort and expense have gone into changing the farm system on this property to avoid winter cropping and its associated effect on soil properties. Therefore, the effect of this farm on soil biota is currently positive
 - No effects on air quality are known.
 - No effects on flora and fauna – but a plan is in place to establish planting programme to enhance landscape values with associated positive influence on flora and fauna. All areas of native vegetation are fenced.
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50 Please explain what **effect your farming activity has on the wider community**, including any social, economic or cultural effects and positive effects.

Social and cultural- farm system has changed significantly over last ten years. Previously the system was heavily dependent on forage cropping and artificial nitrogen. This had impacted negatively on soil conditions, livestock efficiency and staff satisfaction. We have moved away from that to a far simpler grassed based system under irrigation. We believe this shows custodial leadership within the community. Obviously, the farm is a business and as such contributes to the local community through expenditure and employment. We currently employ 3.5 staff plus in addition to ourselves

Our farm expenditure budget which is mostly local is in excess of \$1 million.

51 Please comment on **what effect your farming operation has on natural and physical resources** that may have special values (these special values could include things such as recreational, cultural, or scientific values) for present and future generations. (for example, identify any nearby areas of special value such as the Statutory Acknowledgment Areas – see Guidance notes):

Farming operations for this farm are designed to work within the local landscape and natural characteristics.
To this end disturbance of the landscape is minimized.
All native vegetation areas (and Tukituki river) have been fenced and retired.
Access through the farm is given (by arrangement) to people wishing to access the upper Tukituki for recreation.

52 **Cumulative effects assessment**

I have attached a cumulative effects assessment with my AEE **or**

yes -I agree to participate in a joint, Council commissioned cumulative effects assessment to inform my application, along with other applicants in my sub catchment. I understand that I will be charged a portion of the cost of conducting this assessment and that my application will be placed 'on hold' in accordance with s92(2) while this work is undertaken.

I: REGIONAL PLAN, NPS AND NES ASSESSMENT

Regional Resource Management Plan Objectives and Policies²:

Provision	Will your activity help achieve this? (Y/N/NA)	Explanation/supporting comments
Land		
<i>Obj 11</i> An ongoing reduction in the extent and severity of hill country erosion.	N/A	
<i>Obj 12</i> The avoidance of loss in the productive capability of land, as a result of inappropriate land use practices hastening wind erosion.	Y	No winter cropping activity is presently contemplated. Wherever practicable, re-grassing activity will be by way of direct drilling.
<i>Obj 13</i> The avoidance of nuisance effects or economic losses on adjoining properties as a result of wind erosion.	Y	Refer comment in respect of Obj 12 (above)
<i>Obj 14</i> The avoidance of loss in the productive capability of land, as a result of reduced soil health	Y	Refer comment in respect of Obj. 12 (above)
<i>Obj 38</i> The sustainable management of the land resource so as to avoid compromising future use and water quality.	Y	Refer comment in respect of Obj. 12 (above). Management practices are directed at improving soil health and soil structure, and sequestering Carbon. Those practices have in turn benefited pasture health and quality and is further evidenced in substantial gains in animal performance.
<p><i>Pol 67</i> To encourage landowners and occupiers to manage the effects of activities affecting soil in accordance with the following guidelines:</p> <ul style="list-style-type: none"> • <u>Appropriate land use:</u> Land use activities should not exceed the land use capability of the subject land. • <u>Soils prone to wind erosion:</u> Areas prone to wind erosion from land use activities should have preventative or remedial measures applied. The depth of soil should not be reduced at a rate that exceeds the natural rate of replenishment. • <u>Soils prone to other types of erosion:</u> Where vegetation is removed from areas prone to erosion, best management practices should be followed. These should include replanting the area within 18 months with vegetation that will provide equivalent or better land stabilisation, or other recognised methods that will stabilise land or prevent erosion. • <u>Soil Health:</u> There should be no long-term degradation of the physical properties (including soil structure) or biological properties (including organic matter content) of 	Y	<p>FEMP: land use does not exceed land use capability.</p> <p>Minimum tillage is used and young crops irrigated to rapidly establish cover.</p> <p>Protocols in place to ensure adequate ground cover during winter months. Riparian planning of small dry stream is planned.</p> <p>Management policies are directed at enhancing soil health. Refer FEMP</p>

soil.		
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² For full text please refer to the Regional Resource Management Plan available here: <https://www.hbrc.govt.nz/documents-and-forms/rrmp/?url=/our-council/policies-plans-strategies/rrmp/>

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Scarcity of Indigenous Vegetation and Wetlands		
<i>Obj 15</i> The preservation and enhancement of remaining areas of significant indigenous vegetation, significant habitats of indigenous fauna and ecologically significant wetlands.	N/A	
Groundwater Quality		
<i>Obj 21</i> No degradation of existing groundwater quality in the Heretaunga Plains and Ruataniwha Plains aquifer systems.	Y	The N loss calculated using four year averaged data for the periods is 21.5kg Ha (slightly below allocation)and well below the updated allocation proposed by HBRC. The N loss calculated for the period of the consent sought will remain significantly below the allowable limit. Calculation of P loss risk remains moderate 2 kg/ha/yr Continuation of management policies directed at improving soil health will further mitigate N and P losses. P losses are otherwise addressed through mitigation policies.
<i>Obj 22</i> The maintenance or enhancement of groundwater quality in unconfined or semi-confined productive aquifers in order that it is suitable for human consumption and irrigation without treatment, or after treatment where this is necessary because of the natural water quality.	Y	Refer Obj. 21. Overseer leachate concentration for area in Tukipo at approx. 5 ppm – so well below drinking water threshold of 11.3ppm
Surface Water Resources		
<i>Obj 27</i> The maintenance or enhancement of the water quality of rivers/ streams, lakes and wetlands in order that it is suitable for sustaining or improving aquatic ecosystems in catchments as a whole, and for contact recreation purposes where appropriate.	N/A	All animals excluded from streams. The property is classified as Low Slope Land. Riparian zones in place or being developed.
Recognition of Matters of Significance to Iwi/Hapu		
<i>Obj 36</i> To protect and where necessary aid the preservation of waahi tapu (sacred places), and tauranga waka (landings for waka).	N/A	No waahi tapu or Tauranga waka.
<i>Obj 37</i> To protect and where necessary aid the preservation of mahinga kai (food cultivation areas), mahinga mataitai (sea-food gathering places), taonga raranga (plants used for weaving and resources used for traditional crafts) and taonga rongoa (medicinal plants, herbs and resource).	Y	Improvement of soil health and farming within the property's productive capacity and regulatory limits for N and P losses promotes and protects mahinga kai and mahinga mataitai. Protection of on farm indigenous vegetation for many purposes including including the promotion of native bio-diversity would promote and protect taonga. All streams fenced and retired
<i>Pol 64</i> Activities should not have any significant adverse effects on waahi tapu, or 23auranga waka.	N/A	refer Obj 36
<i>Pol 65</i> Activities should not have any significant adverse effects on taonga raranga, mahinga kai or mahinga mataitai.	Y	Refer Obj 37
<i>Pol 66</i> The importance of coastal, lake, wetlands and river environments and their associated resources to Maori should be recognised in the management of those resources.	Y	Refer Obj 37

Tukituki River Catchment		
<p><i>Obj TT1</i> To sustainably manage the use and development of land, the discharge of contaminants including nutrients, and the taking, using, damming, or diverting of fresh water in the Tukituki River catchment so that:</p> <p>(a) Groundwater levels, river flows, lake and wetland levels and water quality maintain or enhance the habitat and health of aquatic ecosystems, macroinvertebrates, native fish and trout;</p> <p>(b) Water quality enables safe contact recreation and food gathering;</p> <p>(ba) Water quality and quantity enables safe and reliable human drinking water supplies;</p>	<p>Y</p>	<p>By compliance with Resource Consent Conditions where applicable and by having and implementing a FEMP to achieve low nutrient losses. As a farming operation we are reactive to the regulatory environment we must operate within. As such all we can do is react to the guidance and expectation from HBRC (as the implementers of PC6). We believe that in achieving compliance with PC6 we will also be achieving the expectations of the policy objectives within it.</p>

<p>(c) The frequency and duration of excessive periphyton growths that adversely affect recreational and cultural uses and amenity are reduced;</p> <p>(d) The significant values of wetlands are protected;</p> <p>(e) The mauri of surface water bodies and groundwater is recognised and adverse effects on aspects of water quality and quantity that contribute to healthy mauri are avoided, remedied or mitigated; and</p> <p>(f) The taking and use of water for primary production and the processing of beverages, food and fibre is provided for.</p>		
<p><i>Obj TT2</i> Where the quality of fresh water has been degraded by human activities to such an extent that Objective TT1 is not being achieved, water quality shall not be allowed to degrade further and it shall be improved progressively over time so that OBJ TT1 is achieved by 2030.</p>	Y	Farming within allocation and have no direct access to streams
<p><i>Obj TT4A</i> To recognise that industry good practice for land and water management can assist with achieving Objectives TT1, TT2 and TT4.</p>	Y	IGP embedded within FEMP
<p><i>Pol TT1</i> Manage the use of production land upstream of any registered drinking water supply takes to ensure compliance with the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 and the Drinking-Water Standards for New Zealand (2005 Revised edition 2008).</p>	Y	Drainage conc 5 ppm within Tukipo catchment
<p><i>Pol TT2</i> For groundwater Hawke's Bay Regional Council will:</p> <p>(a) Manage the adverse effects of activities likely to affect the quality of groundwater located 10m or more below ground level in accordance with the limits for aesthetic, organic and inorganic determinands; Escherichia coli and nitrate-nitrogen set in Table 5.9.2;</p> <p>(c) Manage activities likely to affect the quality of groundwater connected to and affecting surface water quality having regard to effects on the achievement of the limits and targets set in Tables 5.9.1A and 5.9.1B;</p> <p>(d) Manage the use of production land upstream of any registered drinking water supply takes to ensure compliance with the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 and the Drinking-Water Standards for New Zealand (2005 Revised edition 2008).</p> <p>2. The implementation of POL TT2(1) shall take into account uncertainties associated with variables such as the location of the activity, the spatial and temporal nature of groundwater flows, seasonal variations in groundwater levels, and the effects of historical production land use activities on existing and future groundwater quality.</p>	Y	As per TTI
<p><i>Pol TT4</i> To ensure that the Table 5.9.1B nitrate-nitrogen and dissolved inorganic nitrogen surface water quality limits and the Table 5.9.1D Tukituki LUC Natural Capital Leaching Rates are not exceeded on a whole of farm property or whole of farming enterprise basis:</p> <p>(a) From 1 June 2013 onwards farm properties or farming enterprises exceeding 4 hectares in area shall be required to either:</p>	Y	Have farmed and will continue to farm within allocation limits.

<p>(i) Keep the records specified in Schedule XXI so that Nutrient Budgets can be calculated using Overseer14 (or an alternative model approved by Hawke's Bay Regional Council15) prior to 31 May 2018; or</p> <p>(ii) Keep copies of Nutrient Budget input and output files that have been prepared in accordance with an industry programme approved by Hawke's Bay Regional Council;</p> <p>(b) FEMPs shall be updated at three yearly intervals from 1 June 2018.</p> <p>(c) Require industry good practices to be implemented on farm properties or farming enterprises in order to minimise nitrogen losses;</p> <p>(d) Nutrient Budgets must be updated at least 3 yearly (from 31 May 2018).</p> <p>e) Require that the records kept in accordance with POL TT4(1)(a), (b) and (d) are to be reviewed annually in accordance with an industry programme approved by Hawke's Bay Regional Council (or in the absence of an industry programme, as directed by Hawke's Bay Regional Council) to assess whether any farm system changes are evident in the previous 12 months. If such a change is evident, the Nutrient Budget for the farm system must be updated to determine whether the nitrogen leached from the land exceeds the relevant limit in Table 5.9.1D on a whole of farm property or whole of farming enterprise basis and the updated Nutrient Budget must be provided to the Hawkes Bay Regional Council.</p> <p>(j) For the purposes of achieving compliance with Table 5.9.1D, the estimated leaching rate shall be a 4 year rolling average of the estimated nitrogen leaching rates derived from Nutrients Budgets prepared after 1 June 2013.</p>	<p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p>	<p>Have multiple Overseer files</p> <p>Implementing IGP relating to:</p> <ul style="list-style-type: none"> • Direct drilling instead of full cultivation. • Managing and avoiding potential CSA's such as soil disturbed by stock of storage of supplementary feeds – or as identified by FEMP. • Excluding all stock from surface water • Minimise runoff from stock handling areas • Soil moisture monitoring to drive smarter irrigation
<p><i>Pol TT5</i> To ensure that the Table 5.9.1B dissolved reactive phosphorus (DRP) surface water quality limits are not exceeded and to attain the Table 5.9.1B DRP targets by 1 July 2030 Hawke's Bay Regional Council will:</p> <p>(a) From 1 June 2018 onwards, require farm properties or farming enterprises exceeding 4 hectares in area to prepare and maintain a Phosphorus Management Plan as part of a Farm Environmental Management Plan prepared in accordance with Schedule XXII.</p> <p>(d) Require any application for a resource consent for the use of production land on farm properties or farming enterprises to demonstrate:</p> <p>(i) In areas where the Table 5.9.1B DRP limits are not exceeded that the proposed activity will not lead to an exceedance of the limits in the Tukituki River or its tributaries;</p> <p>(ii) In areas where the Table 5.9.1B DRP targets are exceeded that the proposed activity will not increase existing DRP concentrations in the Tukituki River or its tributaries and that all reasonable and practicable opportunities have been taken to reduce phosphorus losses from the farm property;</p> <p>(iii) The likely achievement of (i) and (ii) through the preparation of a Phosphorus Management Plan.</p> <p>(f) Provide land advisory services and incentives, in collaboration with the primary industry sector and the community, prioritising efforts on tributary catchments which significantly exceed the DRP targets. In particular Hawke's Bay Regional Council will:</p>	<p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>N/A</p> <p>Y</p> <p>N/A</p>	<p>Only moderate risk of P loss from this property – ongoing farming strategy will maintain low risk exposure</p>

<ul style="list-style-type: none"> (i) Develop a catchment strategy and implementation plan to identify critical source areas for phosphorus and eliminate or reduce phosphorus losses; (ii) Encourage industry good practices to be implemented on farm properties or farming enterprises in order to reduce phosphorus losses; (iii) Encourage riparian planting in conjunction with permanent stock exclusion fencing; (iv) In the Water Management Zone 5 (Papanui), encourage riparian planting which provides shading for rivers/ streams and streams in order to reduce macrophyte growth and improve life-supporting capacity of the stream; (v) Encourage surface runoff from stock races, stock yards, bridges and culverts to be diverted away from rivers and streams and discharged to land. 		
<p><i>Pol TT6</i> (1) When considering an application for a land use consent to authorise the use of production land on farm properties or farming enterprises not associated with the operation of a Community Irrigation Scheme, the consent authority must have regard to the following matters:</p> <ul style="list-style-type: none"> (a) The extent to which the use, in combination with other permitted or consented activities, will result in the nitrate-nitrogen and dissolved inorganic nitrogen limits in Table 5.9.1B being approached or exceeded; (b) The extent to which the Tukituki LUC Natural Capital Nitrogen Leaching Rates specified in Table 5.9.1D are exceeded on a whole of farm property or whole of farming enterprise basis; (c) Whether the applicant has supplied a Farm Environmental Management Plan prepared in accordance with Schedule XXII which: <ul style="list-style-type: none"> (i) Adequately describes the farm property or farming enterprise (including soils, climate, topography and environmental risks) and the proposed production land use on the farm property or farming enterprise; (ii) Contains a Nutrient Budget for the farm property or farming enterprise; (iii) Contains a Phosphorus Management Plan for the farm property or farming enterprise; (iv) Describes how industry good practices will be implemented to minimise nutrient (nitrogen and phosphorus) losses, sediment losses and faecal bacteria discharges from the farm property or farming enterprise appropriate to the production land use and land type; (v) Where the farm property or farming enterprise is in Water Management Zone 5, ensures appropriate riparian management measures are implemented to minimise nutrient losses and reduce macrophyte growth in order to improve the life-supporting capacity of the river or stream. (f) Phasing out of existing over-allocation. <p>3. From 4 May 2013 any land use consents granted under Rule TT2 or Rule TT2A to the landowner or occupier shall: (a) have the same expiry date as any section 14 water take irrigation consents for the land, or (b) if there are no irrigation consents for the land then the maximum duration imposed shall not exceed 35 years.</p>	<p>N/A</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p>	

53 **Will the proposed activity be consistent with the objectives of the NPS FM (2020)?**

The Objective of the NPS FM (2020) is:

to ensure that natural and physical resources are managed in a way that prioritises:

- (a) first, the health and well-being of water bodies and freshwater ecosystems*
- (b) second, the health needs of people (such as drinking water)*
- (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.*

Key Policies include:

Policy	
1	Freshwater is managed in a way that gives effect to Te Mana o te Wai.
2	Tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for.
3	Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.
5	Freshwater is managed through a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.
6	There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.
7	The loss of river extent and values is avoided to the extent practicable.
8	The significant values of outstanding water bodies are protected.
9	The habitats of indigenous freshwater species are protected.
10	The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.
12	The national target for water quality improvement to provide water quality suitable for human contact is achieved.
13	The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.
15	Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement.

Yes No

If Yes, please comment on how

By being compliant with the expectations and intent of PC6 – farming within allocation and no stock access to streams on farm

54 Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007: **Are there any registered drinking water supplies** that could be affected by your farming activities? Yes No

(A map of the larger consented supplies are shown on the map here:

<https://www.hbrc.govt.nz/services/resource-consents/national-environmental-standards/drinking-water/>)

If Yes, please provide an assessment of the potential effect.

If No, please explain why.

Note: the nearest consented registered supply appears to be in Waipukurua and Waipawa; being approximately 12 km in a straight line suggesting that there is no immediate direct effect. To the extent that there is an indirect effect through ground and surface water, compliance with regulatory limits and the FEMP ensures that any effect is within safe limits. Farm effect on drainage water is 5 ppm N – well within accepted drinking water standards.

55 Resource Management Act 1991 – Part 2, Purpose and Principles

Provisions	Will your activity help achieve this? (Y/N/NA)	Explanation/supporting comments
<p>Section 5: The purpose of this Act is to promote the sustainable management of natural and physical resources. In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—</p> <p>(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and</p> <p>(b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and</p> <p>(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.</p>	Y	
<p>Section 6 – Matters of National Importance Recognise and provide for the following:</p> <p>a. the preservation of the natural character of the coastal environment, wetlands, and lakes and rivers/ streams and their margins, and the protection of them from inappropriate subdivision, use, and development.</p> <p>b. the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development.</p> <p>c. the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.</p> <p>d. the maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers.</p> <p>e. the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wahi tapu, and other taonga.</p> <p>g. the protection of recognised customary activities.</p>	Y	
<p>Section 7 – Other Matters Have particular regard to the following:</p> <p>a. kaitiakitanga.</p> <p>aa. the ethic of stewardship.</p> <p>b. the efficient use and development of natural and physical resources.</p> <p>c. the maintenance and enhancement of amenity values.</p> <p>d. intrinsic values of ecosystems.</p> <p>f. maintenance and enhancement of the quality of the environment.</p> <p>g. any finite characteristics of natural and physical resources.</p> <p>h. the protection of the habitat of trout and salmon.</p> <p>i. the effects of climate change.</p>	Y	
<p>Section 8 – Principles of Treaty of Waitangi Take into account the principles of the Treaty of Waitangi.</p>	[Y	To the same extent PC6 does

J: CONSULTATION

56 Please provide **details of any discussions/consultation you have undertaken** with any interested or potentially affected parties about your proposal. Please provide brief details of the views of those consulted (you can attach correspondence if appropriate).

The proposal been revised in in consultation Landvision Limited. Landvision has undertaken the Overseer modelling and compiled the FEMP and Environmental Assessment.

As we are farming within our allocation and have no stock access to streams passing through our farm we do not believe we are having any effect (more than minor) and as such have not formally consulted nor have we been formally consulted with regarding the effects any other operation might potentially be having on us.

K: ADDITIONAL INFORMATION REQUIRED:

57 Yes A plan/aerial photograph (Google or HBRC) showing the following information
(where not already contained in the FEMP):

- Farm property boundaries, or properties making up the farming enterprise.
- Key farm features, including critical source areas, stock exclusion areas, effluent disposal areas, ONB blocks, intensive winter grazing blocks,
- the proposed activity or activities in relation to roads, property boundaries, neighbouring properties,
- watercourses, wetlands, wells
- Any other relevant features of the surrounding environment.

FEMP

Paddock maps/plans for intensive winter grazing (where required)

yes -Nutrient budget has been published to HBRC

For Intensive Winter Grazing: A plan of the grazing area showing where **intensive winter grazing** will occur in any given year. Ensure that each **intensive winter grazing** paddock has a unique name/identifier.

58 **Please list all documentation (in addition to this form) which makes up your application.**
Please ensure that all documentation listed is included with your application when it is submitted.

Additional Documentation	Title	Author	Date
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Revised 2021 FEMP and two published overseer files			

Please ensure all design plans or drawings are authorised for use by the author.

59 **Please state what consent duration you are seeking**, and why you want that duration (e.g. provide a schedule of works to identify the additional mitigation measures proposed with a longer duration). (Note: Policy TT6 3. establishes that the land use consent duration cannot exceed 35 years)

20 years – we are a low intensity grass based system and intend to stay that way

60 **Do you intend to carry out any monitoring** to help understand what effect your farming operation is having on water quality? If yes, please provide details.

The scale of operation doesn't justify the capital cost of installing lysimeters. It is proposed instead that continuation of the existing policy of monitoring and continually improving soil health and managing farm operations within the FEMP allowance, will be an acceptable proxy for meeting Council's water quality objectives having regard to the fact that Council has set these limits for the purposes of meeting its regulatory obligations.

Additional Information (from FEMP)

Farm Map



VAN DER BURG RUNOFF
Blackburn Road, Ashley Clinton
FARM SUBDIVISION

Total farm area mapped = 160.1 ha

