



Recommendation and decision on notification of resource consent application(s) under sections 95-95G of the Resource Management Act 1991 (RMA)

The application

Particulars

Applicant:	T J & J A Driscoll
Consents sought:	<ul style="list-style-type: none">• Land use consent to use land for farming (extension of dairy platform and increase in cow numbers)• Discharge Permit to discharge DSE from up to 700 cows (replace AUTH-301043); and• Water Permit to take and use groundwater for dairy purposes and stock water (replace AUTH-301044)
Application reference:	APP-20181765
Site address or location:	266 O'Shannessy Road, RD 1, Winton
Map Reference NZTM2000	
New consent(s) for new activity(ies) (s88)	<input checked="" type="checkbox"/>
New consent(s) for existing activity(ies) (s88)	<input checked="" type="checkbox"/>
Change to conditions of existing consent(s) (s127)	<input type="checkbox"/>

Recommendation and decision

10. Officer's recommendation

The adverse effects from the proposed activity will be more than minor. In the absence of targeted mitigation measures, there is a high chance of those adverse effects occurring.

10.1	The application be processed non-notified	<input type="checkbox"/>
10.2	Public notification is required/recommended	<input checked="" type="checkbox"/>
10.3	The application be placed on hold while the applicant tries to obtain written approvals from the affected persons	<input type="checkbox"/>
10.4	Limited notification is required. Persons to be served notice are those listed in 8.2	<input type="checkbox"/>

Alex Erceg
Consents Officer

Date: 25/7/19

Decision under Delegated Authority

11.1	I agree with the recommendation	<input checked="" type="checkbox"/>
11.2	The application will be processed non-notified	<input type="checkbox"/>
11.3	The application will be publicly notified	<input checked="" type="checkbox"/>
11.4	The application shall be placed on hold while the applicant tries to obtain written approvals from the affected persons	<input type="checkbox"/>
11.5	The application will be limited notified. The parties to be served notice are those listed in section 8.2	<input type="checkbox"/>

This decision is made under delegated authority by:



Michael Durand
Consents Manager

Date: 25/7/19

The proposal

The applicant currently holds a discharge permit (AUTH-301043) which permits the discharge of agricultural effluent from 599 cows and does not expire until 2021. The applicant also holds a water permit (AUTH-301044) which authorises the take and use of groundwater.

Particulars of the Proposal

Property Details	
Property address	266 O'Shannessy Road, RD1, Winton
Property owner(s)	T J, J A, J P and C A Driscoll
Legal Description	Pt Sec 30 Blk I Winton Hundred
	Pt Sec 29 Blk I Winton Hundred
	Sec 43 Blk I Winton Hundred
	Sec 44 Blk I Winton Hundred
	Sec 45 Blk I Winton Hundred
	Sec 54 Blk I Winton Hundred
	Lot 1 DP 449518
	Lot 2 DP 449518 (new block)
Property area (ha)	224.5 ha (previously 210.6 ha)
Change in scale/intensity/farm boundary?	Increase in farm area and cow numbers
Discharge Permit Details:	
Replacement of permit no.	AUTH-301043
Number of dairy cows	700
Stocking rate (cows/ha)	3.1
Winter milking?	No milking between 20 June and 20 July other than slipped cows
Wintering barn?	No
Feed pad/standoff pad?	Two impervious pads that don't drain into the effluent pond
Other sources of effluent?	Vat stand, tanker apron
Type of shed	50 bale rotary (only 6 yrs old – recent conversion)
Effluent treatment	Stirrer in the pond (no need for weeping wall)
Storage available (m ³)	3,261 m ³ lined pond
Storage required (m ³)	2,670 m ³ (as per attached dairy effluent storage calculator)
Disposal area (ha)	93.3
Irrigator proposed	RX Plastics Maxi Pods. Slurry tanker may be used rarely, such as when desludging the pond.
Application rate and depth	10 mm/hr rate and 25 mm depth per application 5mm depth for the slurry tanker
Monitoring proposed	None other than that which will be provided for in CAEMP/FEMP
Water Permit Details:	
Replacement of permit no.	AUTH-301044
Freshwater Management Unit	Lower Oreti and Makarewa
Groundwater Zone	Bore is located in the Lower Oreti groundwater management zone
Average rate of take over 24 hrs (L/s)	1
Daily volume (L)	84,000
Allocation per cow (L/cow/day)	120

Location of point of take	Well Number E46/1067, which is located at the house, is currently used for the shed and troughs. There is another well, E46/1089, which is located at the dairy shed but is not currently used.
Freshwater storage onsite?	4 x 30,000 L tanks
Yearly volume (m ³ /year)	25,903 (120 L/cow/day for 700 cows over summer, 70 L/cow/day for 86 cows over winter)
Discretionary allocation limit for groundwater zone (m ³ /year)	20,700,000
Amount currently allocated from groundwater zone, including current permit (m ³ /year)	4,106,038 (20% of allocation limit)
Land Use Consent (use land for dairying)	
Area of new block (ha)	13.9 ha
Use of land pre-May 2016	Sheep grazing
When was it converted to dairying?	Yet to happen – need to wait until consent is granted
Proposed use of land	Incorporation into the dairy platform

It should be noted that Part Section 29 Block I Winton Hundred was not part of the milking platform when discharge permit AUTH-301403, however has been incorporated into the platform prior to June 2016. Legal description Section 1 SO 12000 and Section 2 SO 12000 also form part of the dairy platform, however have been omitted from the original application.

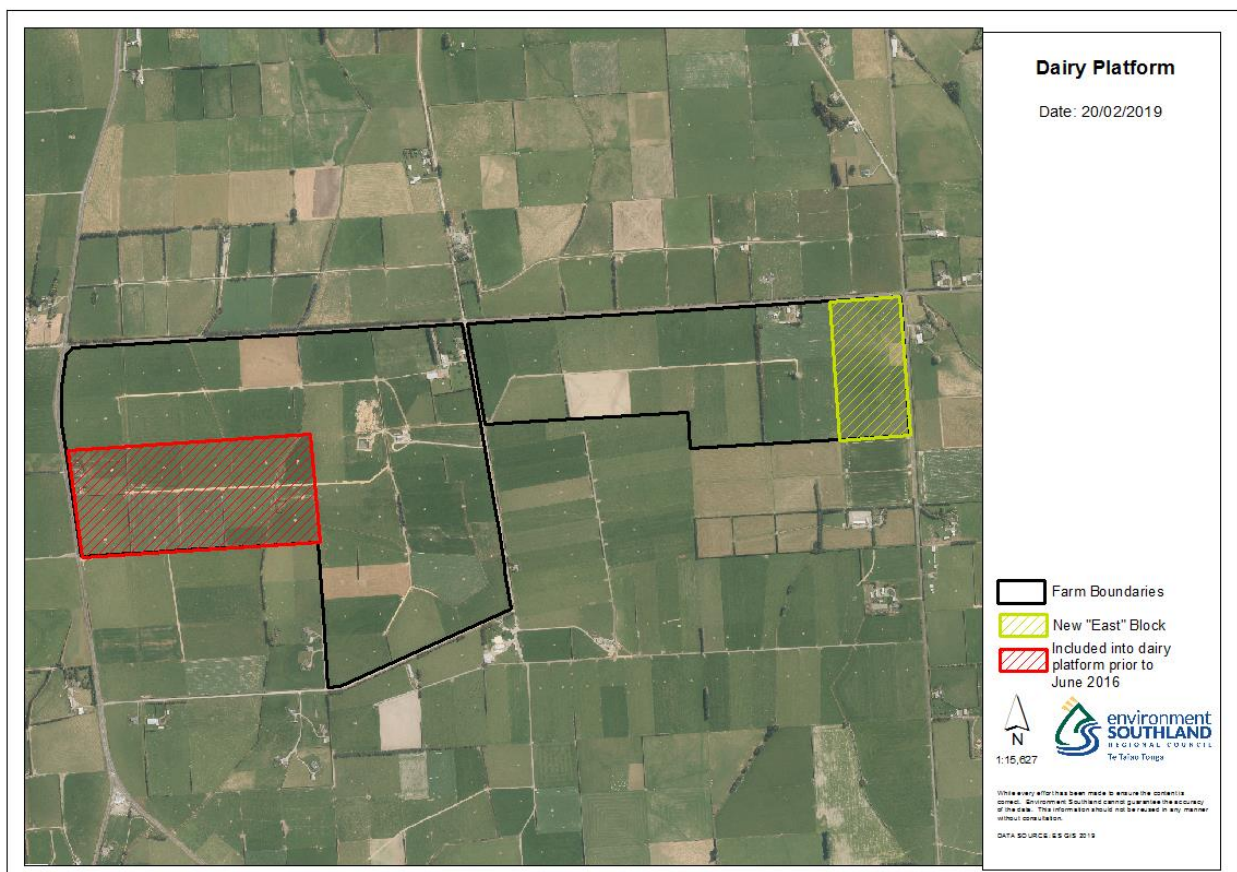


Figure 1: Dairy Platform Map

The following Resource Consents are required:

Consent	Plan	Rule	Activity Status
Discharge Permit to discharge agricultural effluent to land	RWPS	50(d)	<i>Restricted Discretionary</i>
	PSWLP	35(c)	<i>Discretionary</i>
Water Permit to abstract groundwater for dairy shed wash down and stock drinking	RWPS	23(d)	<i>Discretionary</i>
	PSWLP	54(a)	<i>Permitted</i>
Land Use Consent to use land for dairy farming	PSWLP	22(e)	<i>Discretionary</i>

Overall, the activity is a **Discretionary Activity**.

Public notification consideration

Reasons adverse effects on the environment are less than minor / minor / more than minor

The existing environment

The existing environment is described in detail in the application. This description is not in dispute and is adopted.

Groundwater quality in the receiving environment is indicative of moderate to high land use impacts and surface water quality is degraded and for some parameters exceeds guidelines.

The following soils and physiographic zones are shown here to demonstrate the contaminant pathways on the property.

Soils	Soil Type	Vulnerability Factors		
		Structural Compaction	Nutrient Leaching	Waterlogging
	Edendale + Pukemutu	Slight	Moderate	Slight
	Pukemutu	Severe	Slight	Severe
FDE land classification	Category A (artificial drainage or coarse soil structure)			
Physiographic zones	Gleyed – no variant Oxidising – no variant			

The discharge area and physiographic zones on the property indicate that the primary risk of effluent discharge is to surface water via overland flow or artificial drainage in eastern part of the discharge area. The Eastern end of the area poses some risk to groundwater via deep drainage due to it being on the oxidising physiographic zone, however the soil types indicate only a moderate risk of nutrient leaching.

The western portion of the property has some denitrifying potential whilst the western portion has aerated soils which promotes the accumulation of nitrogen in the soil water and groundwater, but has phosphorous retention capabilities.

Effects and Issues

The applicants are applying to include an additional block of land within the dairy farm. The additional 13.9ha is at the eastern end of the property, and was previously used for sheep grazing and following the purchase the applicant began transitioning into a dairy support block. It is within the Gleyed physiographic zone as such surface water is most at risk due to the contaminant pathways present. The new block sits within Tussock Creek catchment. The existing dairy platform sits largely in the Oreti River present, as such the proposal will result in an increase in effects in the Tussock Creek catchment.

The application has modelled the proposed scenario and compared it to the current scenario in Overseer, which has shown that N loss will remain neutral over the entire proposed landholding and phosphorous will increase. The applicant has supplied additional information that shows a slight decrease in phosphorous when the effectiveness of additional GMPs and mitigations that are not rewarded in Overseer has been calculated.

Nutrient Budget	Current Land Use	Proposed Land Use
N Loss to water (kg/ha/yr)	51	51
N Loss to water (kg/yr)	11,503	11,345
P Loss to water (kg/ha/yr)	1.2	1.2
P Loss to water (kg/yr)	262	278

However, isolated losses resulting from the change in land use and intensification on the new block are expected to increase. This is demonstrated in the application where since the purchase of the block and its use as dairy support N loss has increased by 13 kg/ha/yr. These will all be into the Tussock Creek catchment. Increased losses result in increased contaminant loadings in waterways which can cause a number of issues including nuisance algal growth, over sedimentation and eutrophication.

The proposal also includes increased on-site grazing on pasture/bailage over the winter period of mixed age/in calf heifers. When compared to the current scenario the number of mixed age/in calf heifers grazed off-site will not decrease. As such there is no change in off-site effects and an increase in on-site effects. The grazing is also proposed to occur on the new block. However, with respect to the off-site grazing of R1s it is proposed that all intensive winter grazing will be removed and all will be grazed off-site on pasture/bailage over winter. However, the application is very clear that no long term lease agreements are held for the off-site activities and is explicit in that the applicant has no effective control of the grazing of the stock at third party graziers as such, there is uncertainty around this. It should also be noted that there is an additional 27 R1s grazed off-site under the proposal.

The proposal also includes an increase in 101 cows on the milking platform. This has effects on soil health as well as nutrient loadings through the increased volume of effluent produced. The applicant has provided mitigations for the increased effluent such as increasing the discharge area to spread the contaminant loading and installation of soil moisture tapes to allow for better timing of effluent disposal, however this is not reflected in the farm management plan provided with the application.

The Farm Environmental Management Plan relates solely to the discharge of dairy shed effluent and does not address any GMPs or mitigations for the land use activities associated with farming, with the exception of the following;

Table 3: Good Management Practices for the Farm

Mitigation	Good Management Practice	Area where most effective
Protect soil structure (will also help to reduce P and N loss)	1. Wintering the majority of the herd off-site	Whole farm
	2. Re-sow bare soils as soon as possible	
	3. Use calving pads to stand off cows during periods of high soil moisture content	
Manage Critical Source Areas (will also help to reduce P loss)	4. Avoid working CSAs and their margins	CSAs (see Attachment B)
	5. Leave grassed areas (or native vegetation) around CSAs	
	6. All riparian margins to be fenced and planted	
Additional P loss reduction GMPs	7. Reduce use of P fertilizer where Olsen P values are above agronomic optimum	Whole farm
	8. Reduce the risk of run-off to laneways and other sources by ensuring crossings are designed and maintained adequately	
Additional GMPs to reduce accumulation of N in soil	9. Open up breaks during adverse weather and avoid stock camping	Whole farm
	10. Time N fertilizer application to meet crop demand using split applications	
	11. Optimise timing and amounts of FDE application	
Avoid preferential flow of FDE through drains	12. Defer effluent application when soil conditions unsuitable	FDE disposal area
	13. Apply effluent at low rates and depths	

All of the above are good management practices and there are no additional mitigation measures which go “above and beyond” to avoid or mitigate the adverse effects of the proposed activities.

In a further information response the following have also been supplied;

Mitigation	Timing	Operation	Level of effectiveness
			Effluent spread little and often reduces the risk of losses.
Calving Pad	Autumn and Spring period (shoulder seasons)	With additional milking cows, an ability to reduce risk of pugging to pastures over spring and at autumn is required.	The risk of pugging reduces infiltration of soils and increases overland flow of nutrients. Also, nutrients are held and spread onto soil by effluent applications when pastures are more able to receive the nutrients and thus lowers risk of losses.
Best practice pasture/baleage grazing techniques	Winter period	All pasture/baleage grazing will be undertaken using good management practices to reduce risks of overland flow and loss of nutrients via artificial drainage and profile leaching pathways. (See table 3 in FEMP)	Grazing on a flat block reduces risk of overland flow of contaminants and reduces the width of buffer zones required. Losses via artificial drainage and leaching represent the greatest risk but are mitigated with GMPs.
Fertiliser usage based on soil tests	Soil testing to be undertaken on an annual basis, preferably at the same time every year.	Soil tests are used to guide fertiliser recommendations, particularly to guide the decision whether to apply capital or maintenance fertiliser. Maintain Olsen P levels at optimum levels.	High level of effectiveness as using soil testing can significantly reduce nutrient inputs and avoid the excess accumulation of nutrients in the soils – especially P. Higher than optimum Olsen P levels in the soil increases the risk of P losses from the farm system.
Little and often N fertiliser applications timed to avoid high risk periods.	Throughout the growing season	Reduced split application for effluent blocks. Fertiliser is not applied during the winter period.	High level of effectiveness for reducing potential nutrient losses via all three contaminant pathways. Fertiliser application is designed to meet pasture demand and reduce the likelihood of excess nutrients applied.
Control of runoff risk from lanes, gateways	Prior to the start of the season	New lanes to be constructed away from waterways and bridge crossings to be designed to direct runoff to pasture. Increase buffer width on key laneway alongside drain. Gravel used in gateways to avoid tramping damage and runoff directed to pasture. Riparian vegetation to be kept in-situ behind stock exclusion fences.	High level of effectiveness for reducing P losses via "other sources" as modelled in Overseer.

Mitigation	Timing	Operation	Level of effectiveness
Effluent mitigations (increased area and targeted applications)	Only apply effluent when there is a sufficient soil deficit.	Ensure effluent only applied to appropriate areas and spread as widely as possible, with Nitrogen applications taking into account the additional effluent nutrients. Avoid sensitive areas as detailed in FEMP.	High level of effectiveness for reducing contaminant losses via, artificial drainage and deep drainage contaminant pathways when applied at a depth less than soil water deficit which allows nutrients to be utilised in pasture production.

Again these are largely GMPs and do not go above and beyond to avoid or mitigate the adverse effects. Ones such as the calving pad also, have very limited used and the use is described as “sporadic” in the application, may not be as effective as claimed.

Summary

I consider that there is to be an increase in effects resulting from the change in land use and the increased intensification, especially on an isolated level. There will be an increase in losses from the new block into the Tussock Creek catchment which will, especially considered cumulatively, will result in additional nutrients and contaminants entering the receiving environment. The application lacks targeted mitigation measures to address the effects from the change in land use and the increased cow numbers.

Adverse effects that have been disregarded

None

Planning provisions (policies and objectives) relevant to adverse effects

Currently the Southland Regional Council is working under three regional plans, the operative Southland Water Plan, the Regional Effluent Land Application Plan and the proposed Southland Water and Land Plan (decisions version). Please note that I have only included the policies and objectives below that the proposal is not consistent with. There are other relevant policies that relate to this proposal but I have omitted them from this report as they do not relate to potential adverse effects.

There is clear policy direction in the pSWLP that water quality should be maintained or improved where water quality is degraded. This is particularly relevant to the land use component of the application. The main relevant policy is **Policy 16**, which requires that applications to intensify dairy farming are generally not granted where the adverse effects cannot be avoided or mitigated. **Policies 13** and **15A-C** require that land use is managed to maintain or improve water quality. **Policy 6** is specific to the Gleyed physiographic zones on the property and requires that good management practices are implemented to manage adverse effects on water quality from contaminants transported via artificial drainage and overland flow, and that Council have particular regard to contaminants transported via artificial drainage and overland flow. **Policy 10** is specific to the Oxidising Zone on site and is similar to **Policy 6** in its intent. However, direction is provided to decision makers that consents shall generally not be granted where contaminant losses will increase as a result of the proposed activity. **Policy 39** states that when considering any application for Resource Consent for the use of land for a farming activity, all adverse effects should be considered of the proposed activity on water quality, whether or not this Plan permits an activity with that effects.

Conclusion: significance of adverse effects on the environment

The above policies have been used to inform and determine the level of adverse effects associated with the proposed activity, as the direction of the policies help establish what effects are acceptable and therefore whether the adverse effects of the proposed activities are less than minor, minor or more than minor.

When considering all effects of the proposed activity, I do not consider that the adverse effects will be less than minor, especially when considering the cumulative effects, in particular on Tussock Creek. The application does not provide targeted measures to mitigate the adverse effects, as such I consider that the likelihood of adverse effects occurring is high.

Overall, I consider that adverse effects of the proposed activities on the environment will be more than minor.