

IN THE MATTER OF the Resource Management Act 1991

AND

IN THE MATTER OF Applications by White Waters Limited, for discharge of dairy shed effluent and calving pad effluent to land from up to 599 cows by slurry tanker at 5mm depth; and Water Permit to take up to 40,000 litres per day of groundwater from a bore in the Te Anau Groundwater Zone.

**DECISION REPORT
OF
WHITE WATER RESOURCE CONSENT APPLICATIONS
TO
ENVIRONMENT SOUTHLAND**

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1. Introduction

1.1. Overview

White Waters Limited, Te Anau seeks to obtain resource consents associated with a dairy operation at 893 Kakapo Road, RD 2, Te Anau.

White Waters Limited owns the subject property which is used for dairy farming.

White Waters Limited has applied for the following resource consents:

- **Discharge Permit** to discharge dairy shed effluent and calving pad effluent to land from up to 599 cows by slurry tanker at 5mm depth. The proposal is a restricted discretionary activity under Rule 50(d)(ii) of the Regional Water Plan, and is a non-complying activity under Rule 35(d) of the proposed Southland Water and Land Plan (notified version).
- **Water Permit** to take up to 40,000 litres per day of groundwater from a bore in the Te Anau Groundwater Zone. The proposal is a restricted discretionary activity under Rule 23(c)(i) of the Regional Water Plan and a permitted activity under Rule 54(a) in the proposed Southland Water and Land Plan (notified version).

1.2. Appointment

Section 34A of the Resource Management Act 1991 (RMA) allows a local authority to delegate to a Hearings Commissioner or Commissioners any of its functions, powers, or duties, including the power to hear and determine an application for resource consent.

To ensure that the matter was considered independently, Environment Southland, as consent authority, exercised its power of delegation to appoint independent hearings commissioners Hamish Lowe (Chair), and Jayne Macdonald to hear and determine this application for the resource consent.

1.3. Description of the Proposal

The application is described in the applicant's Application and Assessment of Environmental Effects (AEE).

In brief, White Waters Limited seeks a discharge permit for the application to land of farm dairy shed effluent (FDE) for a maximum of 599 dairy cows milked through a 31 aside Herringbone shed. In addition, White Waters Limited is seeking a resource consent to abstract up to 40,000 L/day for stock water and dairy shed washdown water.

In conjunction with the above consents, White Waters Limited were seeking land use consent to construct additional effluent storage to meet the Farm Dairy Effluent Design Code of Practice (FDE COP) 90th percentile and comply with IPENZ Practice Note 21- Dairy Effluent Pond Design and Construction 2013. This consent is now no longer sought.

White Waters Limited dairy operations are not currently consented as the previous discharge and water permit expired on 26 June 2017.

2. Process Issues

2.1. Lodgement and Notification

The application was lodged on 6 April 2018 and a decision made by Environment Southland on notification on 24 May 2018. The application was publicly notified on 29 May 2018.

2.2. Submissions

Four submissions were received, all from companies, organisations, or associations. All submissions opposed the granting of the consent.

We received full copies of the submissions and we read each submission in its entirety. The submitters are listed below.

- Te Ao Marama Inc
- Department of Conservation
- Southern District Health Board
- Fish & Game New Zealand – Southern Region.

2.3. Pre-hearing meeting

A pre-hearing meeting for the application was held on 23 July 2018 and was chaired by Glen Cooper of AECOM. A copy of the pre-hearing report is provided in Appendix A.

2.4. Hearing and appearances

A Hearing of the White Waters Limited application (APP-20181247) commenced at 9.30 am on 4 September 2018 at The Kelvin Hotel, Invercargill.

Appearing for the Applicant was:

- John Scandrett –Agricultural and Engineering Consultant
- Quinton Scandrett – Agricultural and Engineering Consultant
- Mr Hans Vernooij – Director of Applicant Company

Appearing for Environment Southland was:

- Emily Allan, Processing Officer for the Council
- Dr Greg Ryder, Consulting Scientist & Ecologist
- Keri Johnston, Consulting Environmental Engineer

The Panel were assisted by Ms Lacey Bragg, Administration Assistant.

No submitters were present at the hearing¹.

¹ All had given notice in writing prior to the hearing that they did not wish to be heard in support of their submissions.

2.5. Site Visit

Hearing Commissioners Hamish Lowe and Jayne Macdonald visited the application site on 3 September 2018, accompanied by Mr Keith Milne as their independent guide.

2.6. Section 113 of the RMA

Section 113(3) of the RMA provides that a decision prepared under subsection (1) may,—

(a) instead of repeating material, cross-refer to all or a part of—

(i) the assessment of environmental effects provided by the applicant concerned:

(ii) any report prepared under section 41C, 42A, or 92; or

(b) adopt all or a part of the assessment or report and cross-refer to the material accordingly.

In the spirit of section 113(3) of the RMA, and to avoid unnecessary repetition, we intend to cross-refer to the AEE, the applicant's evidence and to the officer's report accordingly.

2.7. Section 124 of the RMA

Section 124 does not apply to the consents before us, as the previous consents expired² prior to the replacement consents being lodged³.

2.8. Consent status

The status of the applications for effluent irrigation and groundwater take are set out under section 1.1 above. Notwithstanding that under the decision's version of the Water and Land Plan, the discharge of DFE to land is a discretionary activity, pursuant to s88A of the RMA the activity must continue to be processed and decided as the type of activity at the time of the Plan's notification.

We agree with the recommendation of Ms Allen that the applications be bundled⁴. However, we disagree with her overall activity status conclusion of the activities being discretionary, as the status of the plans at the time of lodgement must be considered; and thus in our view the consents should be assessed with a non-complying status.

2.9. Nature of decision and Officer's recommendation

Ms Allen, reporting officer for Environment Southland on this application, recommended that the applications be declined.

2.10. Alternative systems

No detailed alternatives assessment has been provided by the Applicant. The reality is discharges can occur to surface water or land. It is clear that surface water is not practical nor encouraged by the relevant plans⁵. This means that land based options have to be considered. By virtue of modifying and proposing different application systems, alternatives in system, design and rates have been considered.

² 26 June 2017

³ 6 April 2018

⁴ Refer s42A report, Section 2.3

⁵ See for example Policy 14 Land and Water Plan

2.11. Definitions

In this Decision the following terms are used:

AEE	Assessment of Environmental Effects;
Applicant	White Waters Limited as the applicant for consent
Council	Environment Southland in its capacity as consent authority
GMP's	Good Management Practices
RMA	Resource Management Act 1991 and its amendments
Water and Land Plan	Southland Water and Land Plan (proposed)

3. Principal Issues of Contention

Section 113 of the RMA directs us, in the case of decisions on resource consent applications, to state the principal issues that were in contention and to state our main findings of fact in relation to those issues. Based on the application documents, the submissions and the evidence presented to the hearing, and the contents of the officer's report, we have identified what we consider the principal issues of contention below. We will discuss those issues sequentially in the sections that follow.

- The evolving nature of the application

Since lodging the application, and even during the hearing process, the design for the system evolved and was refined by the Applicant. We deal with the scope of the application and changes later.

The evolving nature of the application frustrated us. It no doubt frustrated the Council staff, as it would have made assessing a moving design problematic. We sympathize with the Council staff in this regard. Ultimately, the Applicant was prepared to make changes which have refined the design. The result has meant that the refined design is more consistent with GMP's for a FDE application system.

- The suitability of using a slurry tanker

We heard evidence about the proposal to use the tanker to apply effluent. Concerns expressed related to the high rate of application, steepness of the terrain, soil moisture during application, wet areas and periods when application may occur⁶. All concerns related to the potential for run off and surface water contamination.

Based on evidence presented, the Applicant proposed that the tanker would use a high rate of application, but given the relatively small application depth there would be limited volume to run off. On our understanding of the evidence, the potential for run off would be under conditions where the soil is wet, which as noted by the Applicant, would be when it would be difficult to use the tanker, especially on the slopes⁷. The areas of slope greater than 7° were estimated by Mr Q Scandrett as being less than 10 % of the application area⁸.

We note now that the Applicant has proposed to adopt a seasonal limitation for using the tanker, being the months of December to March. The application was also proposed to be restricted by soil moisture constraints⁹.

The Applicant agreed that the use of a slurry tanker would apply effluent at a high rate¹⁰ and if the rate exceeds the soil's hydraulic conductivity then run off may occur. In questions from the panel neither the

⁶ Refer s42A report – discussion under heading “Soils and physiographic zones”, and “Low rate and depth irrigation.”

⁷ Refer Transcript Page 20 from para 1 (Mr Q Scandrett) and Page 20 para para 8 (Mr Vernooij)

⁸ Refer Transcript, Page 20, para 5.

⁹ Refer Right of Reply, para 19 and 20.

¹⁰ Refer Transcript Page 12 para 11 (Mr Q Scandrett)

applicant¹¹ nor the regional council expert¹² could describe the application rate of the slurry tanker, instead providing us with the application depth. From information in the application¹³ we were able to calculate the application depth as in the order of 300 mm/hr. We note that this far exceeds the soil's hydraulic conductivity of 25 mm/hr¹⁴. However, we also note that the application depth is only 3 mm and the applicant is proposing soil moisture must be 7 mm below field capacity when application occurs using the tanker¹⁵.

- Potential for run off

The potential for run off is largely dependent on factors described above, being land slope, soil moisture, application rate and application depth. We note that vulnerable conditions for run-off are potentially self-regulated as it would be practically difficult and hazardous to operate the slurry tanker on the paddocks, especially on the slopes. Further, with the application depth used for the slurry tanker the potential for over land flow and run off would be limited to that applied in the immediate area and not necessarily the entire tanker load.

We also heard that the Larrall low rate system could be used when paddock conditions were more challenging for the tanker¹⁶. We heard no evidence of potential run off limitations or concerns for that system.

- Impacts on surface water from runoff

Much of the debate about adverse effects centered on the potential for adverse effects on surface water. While we agree there is a potential effect, we were not presented with evidence that quantified the impact. Further, it was clear that potential impacts would be limited to times when land conditions may result in runoff.

It is our view that these conditions, while they occur, would not be continuous and present every time slurry tanker application occurred. Therefore, we are mindful of the need to keep in perspective the likely potential for runoff to occur, and the likely potential for discharged FDE to reach surface water.

- Size of the storage pond

We are acutely aware that the need for an additional storage pond changed at the same time the water use figures were recalculated. This seemed to be a coincidence. However, we have no reason to dispute the revised input parameters and the revised storage volume. Ms Johnston did not disagree with the revised volume based on the input parameters provided by the Applicant¹⁷.

- Location of the storage pond

¹¹ Refer Transcript Page 13 para 5 (Mr Q Scandrett)

¹² Refer Transcript Page 35 para 18 (Ms Johnston)

¹³ Refer Consent Application, Section 1.2, page 6.

¹⁴ Refer Consent Application, Section 1.2, page 6.

¹⁵ Refer Right of Reply, Page 3, para 20.

¹⁶ Refer Transcript, Page 21, para 5 to 10

¹⁷ Refer Evidence of Ms Johnston, para 19 and 21

Ms Allen noted that the location of the storage pond was a long way from the dairy shed and this configuration she considered to pose an increased risk of failure¹⁸.

We fail to see why the proximity of the storage pond to the FDE shed sump is relevant. The relevant issue in this case is the management of failure within the system, and we note that the same failure/risk could occur if the pond was located within 20 m of the FDE shed sump.

- Adoption of Good Management Practices

A key aspect of Ms Allen's recommendation for declining consent is the proposal's compliance with GMP's. We note that since the inclusion of the Applicant's advisors (Dairy Green Limited) significantly more GMP's have been suggested and proposed from what was in the initial application, including in the information provided after the prehearing meeting¹⁹. These GMPs are consistent with those identified by both the Applicant and Council at the hearing (Appendix B).

- Good Management v's Best Management

We observe that Mr J Scandrett interpreted GMP's to be much the same as Best Management Practices²⁰ although he did say that some practices may be better in some environments than others. His view is inconsistent with how industry defines the terms.

We prefer the explanation provided by Ms Allen and found it to be very clear²¹. In summary she said GMP is the minimum standard, whereas Best Practice is the "gold" standard – going above and beyond minimum GMP. The relevance of this discussion is attributable to our finding that Mr J Scandrett's claims of adopting Best Management Practices overstated the effort of the Application. Accordingly, we would agree with Ms Allen that the initial application did not meet many practices required to demonstrate that even GMP's were being met.

We provided both the Applicant and the Council an opportunity to state what they considered to be GMP's for managing effects of FDE discharges. We attach the list each compiled as Appendix B to this decision. While it could be debated the attainment, and degree of attainment, of GMP's by the Applicant, we clearly believe that the Applicant is employing many of the GMP's identified in Appendix B. These include:

- Late calving date of herd - 1 September;
- Low consented stocking rate 2.4ha/cow moving to 2.9ha/cow when there is a sustained increase in annual pasture production;
- Supplement feeds have a low N content;
- Once per day milking in the shoulder season;
- Annual soil testing and nutrient budgeting;
- Water use at dairy shed per cow limited to 40l/cow/day;
- Low rate effluent irrigation;

¹⁸ Refer S42A, Page 5, last para

¹⁹ Refer Prehearing additional information, Page 25, last section.

²⁰ Refer Transcript, Page 25, para 7

²¹ Refer Transcript, Page 49, para 7

- Low depth irrigation for all irrigation methods;
- Deferred irrigation based on soil moisture and soil base temperature;
- Sufficiently large effluent receiving area 15ha/100 cows; and
- Installation of soil moisture monitoring;
- Minimum statutory buffers and larger buffers where called for;
- Fail safe systems on effluent pumps;
- High level alarm systems for effluent storage;
- Rainwater diversion for the dairy shed yard is used in the off season;
- Three different methods of effluent applicant methods;
- Calibration and audit of slurry tanker;
- Sampling and testing of effluent for nutrient concentration; and
- Record keeping of effluent applications.

We are conscious that Council guidance doesn't provide a criteria on the level or extent of adoption of GMP's.

- Pond stirring

During the site investigation we observed the condition of the storage pond, and in particular the well-established crust that existed. It is our understanding that this is not typical and would suggest that current pond stirring is not effective. This observation was confirmed by the Applicant²². The consequence we understand would be the potential for solid carry over to the discharge system.

The Applicant advised that the existing crust will need to be removed with a digger and applied though a muck spreader²³.

In the case of the slurry tanker, removing solids and any crust residual would not be critical and we do not see how that may increase effects. In the case of the low rate system there is the potential for sprinkler blockage but that is mitigated by putting a suction screen on the intakes of the pumps²⁴.

- Quantification of effects

Of relevance to satisfying our requirement to make a decision on adverse effects, we were not presented with evidence on the quantum of effects, both in terms of scale of effect, or frequency of effect. We found this disappointing. The Applicant could not provide details on nutrient losses from the activity²⁵. Dr Ryder could not quantify the extent of runoff and what would be needed to see an effect²⁶. He did note however, that it may be difficult to distinguish land management in general from the effects of FDE application²⁷.

We found that the focus of evidence that lead to concerns about environmental impacts was what happens if or when things went wrong, and in particular when there was overland flow. No evidence, by

²² Refer Transcript, Page 16, paras 5 and 6

²³ Refer Transcript, Page 16, para 15

²⁴ Refer Transcript, Page 16, para 17

²⁵ Refer Transcript, discussion on Page 26

²⁶ Refer Transcript, discussion on Page 42

²⁷ Refer Transcript, page 41 para 8

the Applicant or the Council, was provided as to the effects of the discharge under normal operation which adopted the proposed design parameters/system. The Applicant was unable to provide the nutrient loading of the proposed activity, other than to acknowledge it met industry guidelines²⁸.

- Monitoring locations

Both the Applicant and Dr Ryder suggested monitoring locations to monitor effects²⁹.

Upon hearing the evidence, our understanding is that results of monitoring would struggle to distinguish between land use effects and the effects of the FDE application. If there was to be an intermittent runoff issue from FDE application we understand this may not be detected in any monitoring. Therefore, we question the appropriateness and/or reliability of monitoring to assess the impacts of overland flow associated with the FDE application. However, monitoring is relevant to assess the impacts of land use, including FDE application, over time.

- Avoiding wet areas

Evidence was clear that wet areas existed for two reasons. Firstly, after prolonged periods of wet weather the entire landscape can become wet. Under these conditions, wet areas will naturally develop over the entire farm and cannot be avoided and any application would be problematic. Secondly, there are a number of springs over the property and these can be the start of overland flow of surfacing groundwater (or even draining soil water). These locations can be avoided, with drier areas used.

We are of the opinion that adverse effects in conditions where there is landscape wetness can be avoided by not irrigating. Likewise, based on the evidence we heard, wet areas caused by springs can also be avoided.

- Subsurface drainage

We heard evidence that there was a concern about drainage through the soil to subsurface drains. This issue was raised by Ms Allen as a concern³⁰. However, there was no evidence presented which provided quantification of the extent of the drainage or any resulting effect.

We questioned the Applicant about the application of effluent over and around subsurface drains³¹. The Applicant advised that subsurface drains could be avoided with the Larall system, but when it came to using a slurry tanker system, a pre-requisite to irrigation is an appropriate soil moisture deficit.

Mr J Scandrett did provide an opinion that the soil would filter any percolating water³².

²⁸ Transcript, page 12, from para 16

²⁹ Refer Evidence of Dr Ryder, Page 9, Figure 3 and information provided after the pre-hearing by the Applicant.

³⁰ Refer s42A report, Last paragraph, page 4

³¹ Refer Transcript, Page 28, from para 2

³² Refer Transcript, Page 27, para 1

- Springs

The hearing saw debate as to what constituted a spring. The Applicant considered a spring to flow year round³³. Dr Ryder considered that a spring could be intermittently flowing³⁴. We consider Dr Ryder's opinion is more accurate and robust, meaning that springs could be seasonal and from an application of FDE perspective, should be avoided seasonally. More critically, there may be intermittently wet areas that need to be avoided within a year it is not just permanent water bodies that should be avoided.

- Potential for groundwater contamination at springs

The potential for FDE application to contaminate groundwater resources at springs was raised by Ms Johnson³⁵. The accuracy of this was questioned by the Applicant, and addressed in the right of reply³⁶. Dr Ryder could not provide a clear answer on the potential for groundwater contamination³⁷. The panel questions whether contamination of groundwater is possible when there is an upward hydraulic gradient from groundwater, or in fact when the spring is fed from soil water drainage and not groundwater.

- Buffer distances

Some time was spent discussing buffer distances. The Applicant acknowledged the need for buffers around surface waterways. This was also noted by the Council advisors. There seemed to be a consensus that the buffer should increase when the slope increases. However, no evidence was provided as to the extent of increases in buffer distances³⁸. Potentially, increases in effects could be managed by avoiding FDE application on steep soils.

- Sensitivity of the receiving environment

General information was provided on the sensitivity of the receiving environment³⁹. This was not disputed by the Applicant. However, we heard no evidence as to the actual risks on the receiving environment and found it hard to distinguish if there was an effect specifically related to FDE application or whether the effect was more linked to the cumulative effect of land use, which includes FDE application.

Issues that were not in contention were:

- Whether wastewater could be applied to the property per se

We heard no evidence that indicated that FDE could not be applied to the property. The debate was rather the method of application and risks of mismanagement.

³³ Refer Transcript, Page 23, para 11

³⁴ Refer Transcript, Page 40, para 5

³⁵ Refer Evidence of Ms Johnston, paragraph 51

³⁶ Refer Evidence of Ms Johnston, paragraph 23

³⁷ Refer Transcript, page 40, from para 11

³⁸ Refer Transcript, Page 45 para 11

³⁹ Refer s42A report, section 3.3 and 3.4.

- The need to adopt Good Management Practices

As with the previous issue, a major concern expressed by the Council was around the adoption of GMP's. There was no commentary provided by any party that would suggest that should GMP's be adopted, there would still be effects that were unsatisfactory. In other words, if GMP's were adopted then there was no evidence that would suggest that the resulting effects were not acceptable.

- Condition of shed infrastructure

Our viewing of the FDE system in the proximity of the shed indicated facilities in poor condition compared to other properties members of the panel have visited. The management of these facilities, and their sizing, has not be raised as a concern by any party and we have no basis for recommending changes or alternative management.

4. Procedural matters

4.1 Scope

This section of our decision deals with scope, and our jurisdiction to grant consent to the application that is now before us.

Limits on Jurisdiction

We are mindful that our jurisdiction to grant consent is limited by the application as notified. The question of scope has been considered on numerous occasions and tests are well established. The starting point is the decision in *Darroch v Whangarei DC*⁴⁰, where the then Planning Tribunal held that the original application, together with any documents incorporated in it by reference, defined the scope of the consent authority's jurisdiction. Amendments to design and other details of an application may be made until the close of hearing, but only if they are within the scope defined by the original application. If amendments go beyond that scope, by increasing the scale or intensity of the proposed activity, or by significantly altering the character or effects of the proposal, a fresh application is required.

More recently in *Coull v Christchurch CC*⁴¹, the Environment Court concluded that there were three effective tests which should be applied to any change to an application to assess whether the circumstances are within jurisdiction:

- a) Does it increase the scale or intensity of the activity?
- b) Does it exacerbate or mitigate the impacts of the activity, both in terms of adverse effects and in terms of the plan and other superior documents?
- c) Would parties who have not made submissions have done so if they were aware of the change?

The Application as notified

The Public Notice as appears on the Environment Southland Website is attached as Appendix C. The activities for which consent were sought were described in the public notice as:

- Discharge of dairy shed effluent and calving pad effluent to land from up to 599 cows by slurry tanker at 5 mm depth.
- To take up to 40,000 litres per day of ground water from a bore in the Te Anau groundwater zone.

That description is the bare detail. By the time the application was notified, the Applicant's proposal was to include the discharge of effluent to land by complimentary low rate pod and umbilical system, together with the adoption of related GMP's, namely adherence to prescribed buffer distances, use of low depth irrigation, use of an effluent storage tank and deferred irrigation⁴². We note that additional measures

⁴⁰ A018/93 (PT)

⁴¹ EnvC C077/06

⁴² See response to request for further information and revised AEE dated 10 May 2018 and section 95-95G Recommending report dated 24 May 2018

(design and further GMPs) to that in the initial application were provided in information circulated after the prehearing meeting.

Given the nature of the changes from lodgment to hearing date, we asked at the commencement of the hearing, that the Applicant clarify for us exactly what was now sought by way of its application. We asked that it do this by completing a comparison table (attached as Appendix D).

The Applicant had a further opportunity to refine its application as part of its right of reply, and took the opportunity to do this, mainly by way of additional mitigation measures and/or additional GMP's.

The application now before us so far as the discharge of effluent is concerned is as follows:

- Discharge of Effluent to Land via Slurry Tanker to a depth of no greater than 3 mm depth per application and when there is soil moisture deficit of 7.0 mm or greater. This would be a high rate application system applying to 78 ha.
- Discharge by Larall System to a depth of up to a maximum of 10 mm when there is soil moisture deficit equal to or greater than the application depth. This would be a low rate application using 25 ha (included in the 78 ha above).
- Discharge by umbilical system to a depth of up to a maximum of 10 mm when there is soil moisture deficit equal to or greater than the application depth. This would be a low rate application applying to 78 ha.
- Use of a storage (pumpable) volume of 1,238 m³.⁴³
- Adoption of a range of GMPs.

Is the application before us within scope such that we have jurisdiction to grant consent?

We have considered carefully the application as notified, noting the amendments made, as discussed above prior to notification. While the description of the activity in the public notice could have been more fulsome, we are not concerned that its brevity would have misled potential submitters, with the use of the slurry tanker method of effluent disposal being the more controversial method of disposal than the complimentary Larall system described in the application.⁴⁴

Applying the tests above, we have come to the conclusion that we have jurisdiction to consider the application before us, namely:

Do the changes increase the scale or intensity of the activity?

No. There is no change in the number of cows to be milked or the production of effluent to be discharged. Rather, the changes proposed, particularly the adoption of the GMP's have reduced the scale of the activity with a greater control of application method and timing.

⁴³ For completeness, we note the application as lodged (but amended prior to notification) included provision for additional storage capacity that would take total storage to 3,300m³.

⁴⁴ Our analysis of the various submissions filed showed that submitters fully appreciated the nature of the application, disposal methods and GMPs proposed.

There is no increase in size of the effluent discharge area. The rate of effluent discharge has been reduced from that notified, and a minimum soil moisture deficit requirement added.

Do the changes exacerbate or mitigate the impacts of the activity, both in terms of adverse effects and in terms of the plan and other superior documents?

For the reasons set out above, the effect of the changes are to mitigate the effects of the activity, in particular the adoption of a greater number of GMP's. The GMP's proposed are consistent with (in particular) Policy 6 of the Water and Land Plan, requiring implementation of GMP's to avoid, remedy or mitigate adverse effects on water quality.

Would parties who have not made submissions have done so if they were aware of the changes?

- a) We have addressed this point to some extent above. We also note in the context of this discussion, those submitters who, while not withdrawing their submissions, withdrew their right to be heard before us, content to rely instead on the evidence and recommendations of the Council's experts and reporting officer.
- b) For the same reasons as set out in the preceding paragraphs, we are satisfied that there are no additional parties who would have submitted to the application, had they been aware of the nature of the changes proposed. As above, those changes are in the nature of mitigation measures, designed to avoid or remedy, rather than exacerbate effects. Neither do the changes proposed by the Applicant in its right of reply provide the submitters any further rights of participation. The changes are within the scope of the application as notified and constitute refinements addressed to mitigating effects.

4.2 Previous Compliance

We are aware of historic compliance action relating to the property.

The past conduct of an applicant is a matter of enforcement and does not provide a legitimate ground for refusing to grant a resource consent. Past conduct may however be relevant to deciding the adequacy of conditions, if there is evidence that earlier conditions have proved to be unsatisfactory.

We have not heard evidence related to past conduct and adequacy of conditions. As such, we have not taken into account any matters relating to past operation and compliance in making our decision.

5 Statutory Considerations

5.1 Section 104D

We cannot grant a consent to a non-complying activity unless we are satisfied the adverse effects of the activity on the environment will be minor or the application is for an activity that will not be contrary to the objectives and policies of both the relevant regional plan and the proposed regional plan.

Only once the application has passed through this gateway do we turn to consider the matters in section 104(1) and the exercise of our overall discretion pursuant to section 104B.

As will be evident from the discussion below, we find that the effects of the activity are no more than minor, and the proposal is not contrary to the objectives and policies of both relevant regional plans.

5.2 Section 104(1) Any actual and potential effects on the environment

5.2.1 Effects of proposed discharges

As noted previously, the effects of the discharge of FDE have not been quantified. While focus has been on what would or could go wrong, there has not been any quantification from any party of effects beyond the property. However, the Applicant has noted that they are intending to apply effluent in accordance with industry practice and Environment Southland design guidance. Specifically, Environment Southland recommend using 4 ha per 100 cows and the proposal is for 7.7 ha per 100 cows.

As noted previously, the focus of the assessment of the application has been on what might go wrong. We have not heard evidence on the scale and frequency of potential failure, nor effects. We consider that if managed appropriately, and with appropriate conditions, the risks for failure would be minimal, and as a result effects associated with failure would also be minimal.

We find that if the proposal is in accordance with Environment Southland's recommendations for FDE application, and appropriate GMP's are implemented and followed, any effects of FDE application would be unlikely to be distinguishable over and above the existing land use.

5.2.2 Effects of Water Abstraction

The effects of the water abstraction are not well defined and discussed in the Council Officer reports, with the focus being on the effluent discharge. Needless to say, the evidence that is presented did not indicate that there would be any adverse effects. Consequently, and given the relatively small volume sought, we have no reason to question that the effects of the abstraction will not be acceptable.

5.2.3 Public Health Effects

There is a public water supply system operating downstream. In our view this supply system is sufficiently down stream that the impacts of any effluent discharge will be indistinguishable from the existing environment, including other land uses.

5.2.4 Social and Amenity Effects

The potential for an effluent discharge to reach surface water is in our view likely to be intermittent. This would largely be a result of poor management of the application system. It is our view that there will be no continuous effects as a result of the proposed discharge that would impact on water quality, with a greater impact likely to be on existing land use.

5.2.5 Cultural Effects

Cultural preferences are for wastewater discharges to be applied to land to allow passage through Papatuanuku. This Application achieves this objective.

5.2.6 Ecological effects

We have not been provided with specific ecological effects that may result from the discharge which are over and above any effects of land use. Dr Ryder noted that it would be difficult to distinguish through monitoring effects of the effluent application over and above that of the farming operation⁴⁵.

5.2.7 Odour and aerosols

With the application regime, and buffers to property boundaries, we are of the opinion that air quality effects will be less than minor.

5.2.8 Cumulative Effects

Cumulative effects of effluent discharges are unlikely to be noted in this catchment due to the sparse nature of the dairy farms. However, effects of effluent discharge combined with land use could result in cumulative effects on waterways. It is our opinion that the effluent contribution will be relatively minor if appropriate GMPs are followed.

5.2.9 Positive Effects

We conclude that the effects of the land application of effluent can be positive, in that nutrients from the farming system can be retained in the farming system and if appropriately managed not lost to the wider receiving environment. This conclusion is supported by the adoption of GMPs as identified by Environment Southland.

5.2.10 Written approvals

There are no written approvals received on this application.

5.2.11 Conclusion on Effects

Over all, it is our opinion that the effects as a whole of the discharge of effluent and taking of water will have effects on the local environment that are no more than minor. This is largely based on attaining and adopting GMP as set out in Environment Southland guidance documents.

We note that concern about effects expressed by Council staff focuses on circumstances when the farm operation may not be in accordance with GMPs. We, and for that matter Environment Southland, have

⁴⁵ Refer Transcript, discussion on Page 44

to have confidence that such sporadic events and potential failures are avoided through the adoption and use of appropriate conditions.

5.3 Section 104(1)(b)

Under section 104(1)(b) of the RMA we must have regard to any *relevant* provisions of:

- (a) a national environmental standard
- (b) other regulations
- (c) a national policy statement;
- (d) a New Zealand coastal policy statement;
- (e) a regional policy statement or proposed regional policy statement;
- (f) a plan or proposed plan
- (g) any other matter the consent authority considers relevant and reasonably necessary to determine the application

We record that the relevant RMA derived instruments requiring our consideration in this case are the:

- (a) National Environmental Standard for Sources of Human Drinking water Regulations 2007
- (b) Resource Management (Measurement and Reporting of Water Takes) Regulations 2010
- (c) National Policy Statement on Fresh Water Management 2014
- (d) Proposed Southland Water Land Plan
- (e) Regional Effluent Land Application Plan
- (f) Regional Water Plan
- (g) Te Tangi a Tauria Iwi Management Plan

Ms Allen's report undertakes an assessment of the relevant provisions of the National Environmental Standard for Sources of Human Drinking Water Regulations (2007) and Resource Management (Measurement and Reporting of Water Takes) Regulations (2010)⁴⁶. We agree with that assessment and do not repeat it here.

Ms Allen produced the relevant planning provisions from the Regional Plans as an appendix to her Section 42A report. We do not repeat the full extent of those provisions here and except as set out below, agree with her assessment of those provisions and again, do not repeat that here.

Central to Ms Allen's recommendation that consents should be declined was:

- Insufficient use/adoption of GMP's – contrary to Council's policy position
- Water quality will not be maintained or improved, again, contrary to the Council's policy position.

Ms Allan identified the following policies as those upon which the application turns, and we agree. She expressed the opinion that the application was contrary to these policies.

⁴⁶ Refer S42A – section 4.4

Water and Land Plan (decisions version)

- Policy 6 – In the Gleyed, Bedrock/Hill Country and Lignite-Marine Terraces physiographic zone, avoid, remedy or mitigate adverse effects on water quality from contaminants by:
 1. Requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant; and
 2. Having particular regard to adverse effects on water quality from contaminants transported via artificial drainage, and overland flow where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans.

- Policy 17
 1. Avoid significant adverse effects on water quality, and avoid, remedy or mitigate other adverse effects of the operation of, and discharges from agricultural effluent management systems.
 2. Manage agricultural effluent systems and discharges from them by:
 - (a) Designing, constructing and locating systems appropriately and in accordance with best practice; and
 - (b) Maintaining and operating effluent systems in accordance with best practice guidelines; and
 - (c) Avoiding any surface run-off or overland flow, ponding or contamination of water, including via sub-surface drainage, resulting from the application of agricultural effluent to pasture; and
 - (d) Avoiding the discharge of untreated agricultural effluent to water,

Regional Water Plan

- Policy 31A – Match the level of management that is required for discharges of contaminants onto or into land to the level of environmental risk posed by the following risk factors:
 - (a) Nature and quantity of contaminants in the discharge
 - (b) Sloping land
 - (c) Soils with artificial drainage or coarse structures
 - (d) Soils with impeded drainage or low infiltration rates
 - (e) Well drained soils
 - (f) Climate
 - (g) Proximity to groundwater
 - (h) Proximity to surface water
 - (i) Soil's current physical, chemical and biological characteristics and its potential to leach nutrients
 - (j) Natural hazards (for example, flooding and erosion)

- Policy 42 – Avoid adverse effects on water quality and other adverse environmental effects associated with the application of dairy farm effluent to land by matching farm dairy effluent management to receiving environment risk.

Ms Allen makes the point that GMP and best practice are relevant for the purposes of the policies noted above. We agree. As we have discussed elsewhere, the Applicant now proposes to adopt and implement a greater number of GMP's than originally proposed.

Ms Allen takes issue with the following GMP's, and notes that what is proposed does not conform to GMP or best practice as required by the regional plans:

- Buffer Distances
- Low rate and depth irrigation
- Effluent Storage

We address each in turn:

Buffer Distances

Buffer distances were discussed at some length above. One of the key reasons for buffer distances is to minimize the impact of any over land flow, especially on wet and sloping soils. This is particularly relevant for the use of tanker application.

We are of the opinion that with adequate management the standard buffers of 20 m to waterways are appropriate when using a tanker, especially given the low application depth, having a seasonal use limitation and not using land sloping over 7°.

Low Rate and depth irrigation

Ms Allen is of the view that low depth irrigation is insufficient alone. This was discussed at some length with the Applicant during the course of the hearing. After hearing the evidence and considering the mitigation measures proposed (including GMP's) we do not agree that low depth application using a high rate application system is inappropriate in this environment. We are satisfied that providing the environmental conditions allow, particularly deficit application and avoidance of wet areas and steeper slopes, this method of application is appropriate⁴⁷. In fact we note that using a tanker system is common practice elsewhere in the region and can be used as a mitigation tool⁴⁸.

The evidence for the Applicant was to the effect that in the shoulder season, when conditions are unsuitable for application by slurry tanker, the low rate low depth Laurall Hydrant system would be utilised. In the response to the pre-hearing meeting the applicant noted this would be December to March.

⁴⁷ The Good Management Fact Sheet for Overland flow, appended to Ms Allen's s42A report, under "effluent management" recommends the use of low rate effluent application methods **where required** – being soil and landscape dependent

⁴⁸ Refer Applicant Evidence, paragraph 72(c)

We are satisfied that the combination of systems, and operating parameters for each system accords with GMP and is therefore consistent with Policy 17(2). We do not agree with Ms Allen that the application is contrary to Policy 31A. The combination of application methods and mitigation measures in our assessment means the management of the discharge does meet and address the environmental risks posed, and in fact can be used diligently to mitigate environmental risks.

With respect to Policy 42, a key aspect for this application is ensuring the instantaneous application rate does not exceed the soil's infiltration rate when the land slope is greater than 7°. We are mindful of the evidence of Mr Q Scandrett that in his opinion there is only 10 % of land over 7°⁴⁹; that being the case if there was a reduction of 10 % of the land area irrigated it would mean the instantaneous application rate and soil infiltration rate issue is negated and there is no longer a policy conflict as identified by Ms Allen⁵⁰.

For those same reasons as set out above, we are satisfied that the proposal is consistent with the policies of Te Tangi a Taurira.

Effluent Storage & Location

Ms Allen held concerns that there was insufficient storage on site to meet the GMP volume. We have discussed above storage capacity with reference to Ms Johnston's evidence. Based on the evidence we heard, we are satisfied GMP will be achieved so far as on site storage is concerned. We note however, the suitability of the storage volume is based on the parameters used to calculate the storage requirements, which have been modified since the application was lodged. We have not heard evidence that would suggest the input parameters for the storage volume calculations are incorrect.

Ms Allen also took issue with the location of the effluent storage tank, being located some 1.3 km from the dairy shed. However, it seemed to us the concern was not the distance effluent was to be pumped, whether 50 m or 1.3 km, but rather the fact of managing the contingency for pump failure at the shed. We do not share Ms Allen's view that the current infrastructure is located such that it is not in accordance with best practice. In this regard there is no inconsistency with Policy 17(2)(a).

Ms Allen concludes that the application is contrary to Policy 6 because proposed GMPs are not sufficient to avoid or mitigate adverse effects on water quality. Again, with reference to the GMPs and other mitigation methods now proposed by the Applicant, we disagree with Ms Allen's conclusions. We also find that the proposal is consistent with the first part of Policy 17 and significant adverse effects on water quality will be avoided.

We are satisfied that with the combination of GMP's and mitigation measures, including conditions of consent, that the proposal will give effect to Policy 16(2).

We note that many of these GMPs were in fact included at the time of the pre-hearing meeting, or in follow up information to the prehearing. They were therefore not solely offered at the consent hearing in response to questions from the panel.

⁴⁹ Refer Transcript, page 20, para 3

⁵⁰ Refer s42A report, Section 3.1, page 17, para 2.

Policies relevant to cultural values

Ms Allen's assessment of these policies and her findings that the application is contrary to many of them again relates to her assessment of GMP's and their effectiveness in avoiding or mitigating effects. We have discussed this extensively above. Again, we find that the combination of application methods and mitigation measures, including consent conditions will not result in any inconsistency with the relevant objectives and policies.

5.4 Other matters

5.4.1 Permitted baseline

When forming an opinion for the purposes of subsection 104(1)(a) of the RMA we may disregard an adverse effect of the activity on the environment if a national environmental standard or a plan permits an activity with that effect. As we have discussed earlier in this decision, the experts have found it difficult, as have we, to distinguish if there is an effect specifically related to FDE application or whether the effect was more linked to the cumulative effect of land use, which includes FDE application.

Land use, including impacts of high intensity grazing, have comparable effects to FDE loss to the environment. While these land use effects were not quantified by any party, we have been mindful that they constitute a permitted baseline for the purposes of our assessment.

5.4.2 Value of investment

Under section 104(2A) of the RMA, we must have regard to the value of the investment of the existing consent holder if the applications before us are affected by section 124 of the RMA. We note that the previous application for the discharge of FDE on the property has expired and therefore the discharge activities do not enjoy protection under section 124 of the RMA. Consequently, section 104(2A) does not apply.

We note that this has not materially affected our assessment of the applications as our assessment is based on the potential adverse effects. The situation may have been different had we found all or most of those effects to be significant.

5.4.3 Trade competition

Under section 104(3)(a)(i) of the RMA we must not have regard to trade competition or the effects of trade competition. Issues of trade competition were not raised by the applicant or the submitters.

5.4.4 Written approvals

Under section 104(3)(a)(ii) of the RMA we must not have regard to any effect on a person who has given written approval to the applications. We understand that no written approvals were obtained by the applicant.

As noted previously, all 4 submitters provided written notice to withdraw their right to be heard at the hearing. None of those submitters attended the hearing.

5.5 Section 105

Under section 105(1) of the RMA we must have regard to the nature of the discharge and the sensitivity of the receiving environment to adverse effects; the applicant's reasons for the proposed choice; and possible alternative methods of discharge, including discharge into any other receiving environment.

We have discussed the nature of the discharge (dairy shed effluent) and the sensitivity of the surrounding receiving environments in preceding sections of this decision report.

We understand that the applicant's reasons for their proposed choices are to make use of the existing wastewater infrastructure, albeit now with modifications. We have already addressed the effects of the applicant's proposed discharge regime and found them to be acceptable.

The applicant has considered alternatives, as detailed in earlier sections.

In terms of methods of discharge, the proposed method of application utilises alternatives which are standard within the dairy industry, including the use of a tanker system. In fact, we note that there are multiple options available to the Applicant, with the key consideration being the use of the most appropriate system given the conditions at the time of application. This flexibility of having multiple systems does not typically exist nor is it required by any of the council plans or guidance documents.

We are satisfied that we have had appropriate regard to section 105 matters.

5.6 Section 107

Under section 104(3)(c)(i) of the RMA we must not grant a consent contrary to section 107. That latter section states that we shall not grant a discharge permit if, after reasonable mixing, the contaminant water discharged (either by itself or in combination with the same, similar, or other contaminants or water), would be likely to give rise to all or any of a list of water quality effects.

No party to the hearing presented any evidence that suggested that any of the water quality effects listed under section 107 (1) (c-g) is likely to occur as a consequence of this proposal. There is therefore no reason to decline the granting of the discharge permit because of section 107.

6 Monitoring and reporting

Following the prehearing meeting the Applicant provided a set of suggested consent conditions. These outline possible monitoring and reporting requirements. No conditions were provided by Ms Allen. The Applicants conditions were not commented on by Ms Allen in her s42A report.

Although no council officer or submitter presented specific evidence relating to monitoring and reporting during the hearing we note there was a discussion by the panel with Mr J Scandrett and Dr Ryder about the location of surface water monitoring sites.

We have considered the Applicant's suggested conditions as they relate to monitoring and reporting. Where appropriate we have included them in conditions we have imposed as outlined in the next section.

7 Consent duration and review

The Applicant initially sought a term of 10 years. At the prehearing this was revised to 5 years by the Applicant. The reason given was in acknowledgement of the sensitivity of the receiving environment.

We do not fully agree that sensitivity of the receiving environment is an appropriate measure to determine consent term, with certainty of effects being typically a more appropriate and utilised measure⁵¹. However, the Applicant has offered a 5 year term.

There was also no guidance given on the potential for term to align with a common catchment expiry approach. We are of the view, however that as the term sought is only for 5 years, and common catchment expiries are typically 10 years cycles, there is no need to have the consent for this application aligning with the common catchment expiry date.

We need to consider the requirements for a review of the consent conditions to address unforeseen circumstances at the time of the Application being processed or effects that can not be mitigated through existing conditions. We are of the view that provision should be made for annual reviews (if needed) of the consent conditions in accordance with section 128.

⁵¹ Ms Allen agreed when we put this question to her, see Transcript page 54, from para 7

8 Part 2 and Other Matters

Following the decision of the Supreme Court in *King Salmon*⁵², there has been uncertainty regarding the applicability of Part 2 to resource consent applications. Following the recent decision of the Court of Appeal in *R J Davidson Family Trust v Marlborough District Council*⁵³, some certainty has been restored. The direction from *Davidson* is that when assessing resource consent applications, local authorities should keep Part 2 in the back of their minds in their consideration of an application against plan provisions. Where a local authority can be confident that its plan effectively gives effect to Part 2, detailed consideration of Part 2 is not necessary for every resource consent application and may not in effect add anything. We are aware that the Water and Land Plan is part way through the review process, and is subject to appeal. It is yet to be robustly tested against the RMA, including Part 2. As such, we undertake a consideration of the application against Part 2.

Part 2 of the RMA sets out the purpose and principles of general application in giving effect to the Act. We understand that the RMA has a single purpose, which calls for an overall broad judgement of potentially conflicting considerations, the scale or degree of them, in terms of their relative significance or proportion in promoting the sustainable management of natural and physical resources.⁵⁴

Relevant matters for our consideration under Part 2 include s5, s6(e), s7(b), (f). To a large degree, these section 6 and 7 matters are incorporated into and addressed in the relevant objectives and policies of the regional plans. Objectives and policies in the Land and Water Plan, and Te Tangi a Tauria address and provide for those matters in section 6(e). We have found the application is consistent with that policy framework. In turn we are satisfied that in making our decision we have recognized and provided for s6(e) matters.

In making our decision we have had particular regard to the matters in section 7(b) and (f). We have recognized the existing infrastructure invested in the property, together with the additional investment and GMP's the Applicant will invest in to continue to utilise the land efficiently. We are satisfied that the quality of the environment will be maintained as a result of the combination of measures to be implemented by the Applicant.

In the end result, we are satisfied that a grant of consent, subject to the conditions we have imposed, will accord with the RMA's sustainable management purpose.

⁵² *Environmental Defence Society Inc v The New Zealand King Salmon Co Ltd* [2014] NZSC 38

⁵³ [2018] NZCA, 316

⁵⁴ *Green & McCahill Properties v Auckland Regional Council* [1997] NZRMA 519 (HC).

9 Conditions

The Applicant provided a suite of conditions following the prehearing meeting. Ms Allen did not discuss these or offer conditions in her officer's report.

We have sought example conditions for similar discharges from the Council and used these as the basis for conditions we see as appropriate for the applications before us. We have modified these conditions to incorporate the Applicant's proposed conditions, where appropriate, and the undertakings and offerings made by the Applicant during the hearing process. The conditions have also been modified where necessary to capture issues raised by the reporting officer and council expert.

We note that the modifications to the conditions we have made (from the Applicants offerings and those supplied by the Council) are largely based on information that had been provided prior to the hearing. We make this point as we feel that sufficient direction had been provided by the Applicant in material lodged with the council following the prehearing meeting (albeit in some cases a range of options or alternatives were provided) and the conditions we have developed are merely a reflection of their proposed undertaking.

Below is a commentary on specific (not all) effluent conditions:

- Condition 1 – a term of 5 years is now sought by the applicant (as offered by the Applicant).
- Condition 3 – specifies the source of the effluent, the application method and the area available for use (as offered by the Applicant).
- Condition 5 – identifies the hydraulic loading associated with the different method of application (as offered by the Applicant). We note that the Applicant as identified an average maximum of 3 mm for the tanker. For compliance reasons we believe the maximum should be 5 mm.
- Condition 7 – it is clear that the concern of all parties (including the Applicant) is the potential for run off, and we agree. While this is predominately related to soil moisture and slope, it is clear that there are times of the year that are more susceptible for run off. Consequently, based on the evidence of the months of operation provided by the Applicant, we have chosen to limit the months in which the tanker can be used.
- Condition 8 – specifies the need and installation for soil moisture monitoring and its calibration (as offered by the Applicant).
- Condition 10 – specifies the need for alarms to indicate maximum water levels in storage facilities (as offered by the Applicant). We have added a further requirement specifying a minimum freeboard.
- Condition 11 – sets out setbacks and exclusions (as offered by the Applicant). We have added to this based on the evidence provided and management offered by the Applicant to include a

limitation on both soil temperature and slope. The temperature limitation was offered by the Applicant at the hearing. We have concluded, based on evidence, there is sufficient land for irrigation even if slopes greater than 7° are excluded.

- Condition 13 – we have added a further condition that tightens up on ponding and follows a criteria more routinely used around the country.
- Condition 14 – is a standard condition used (as offered by the Applicant).
- Condition 17 – is a new condition requiring the storage pond level to be low going into the winter. This is to ensure that any pond inflow that can not be irrigated can be retained before the irrigation season starts. This approach is consistent with DairyNZ's GMP for managing stored effluent.
- Condition 19 – the Applicant has proposed to record the location of effluent applications. We believe this is an appropriate requirement to identify what and when application are made, and to assist with demonstrating compliance with other conditions of consent.
- Condition 23 – details what is expected in a management plan. It expands on what was initially proposed by the Applicant and add further actions as reflected in evidence given at the hearing.

We note that the Applicant offered a number of other undertakings, such as the use of a pond stirrer, but we are of the opinion that they do not need to be required by consent conditions, primarily as they do not directly manage or mitigate environmental effects. We do suggest however, that these offering are incorporated into the Effluent Management Plan.

10 Determination

Pursuant to section 104B of the Resource Management Act 1991 and the powers delegated to us by the Southland Regional Council under section 34A of the Resource Management Act 1991, we record that having read the applicant's AEE and evidence, the submissions and submitter evidence, Ms Allen's officer's report and its supporting technical reports, and having considered the various requirements of the RMA, we find that:

- a) The actual and potential adverse effects of the White Waters Limited applications are no more than minor or are otherwise able to be appropriately mitigated by the imposition of robust conditions of consent;
- b) The applications are either consistent with the provisions of the relevant statutory instruments or where they are not consistent any outstanding issues can be addressed by robust conditions of consent; and
- d) The applications are consistent with Part 2 of the RMA and so the purpose of the RMA would be best achieved by granting them.

We therefore **grant** the applications lodged by White Waters Limited for the reasons listed above and as further set out in the body of this decision report.

The conditions of consent are set out in Appendix E. The consents will expire on 15 October 2023.

11 Signed by the commissioners



Hamish Lowe, Chairperson



Dated: 12 October 2018

12 Appendices

12.1 Appendix A: Pre-hearing report

Report on pre-hearing meeting

Section 99 of the Resource Management Act 1991 (RMA)

From: Glen Cooper, Chairperson

To: Commissioner(s) or Committee appointed to hear and determine the resource consent applications by White Waters Limited lodged with Environment Southland (APP-20181247)

Date: 10 August 2018

Pre-hearing meeting

1. On 23 July 2018 the Environment Southland (ES), conducting its function as consent authority under the Resource Management Act 1991 required White Waters Limited, who has applied for resource consent, and all persons who are submitters on the application, to meet. The meeting was required by ES at the request of the applicant, for the purpose of clarifying a matter or issue or facilitating resolution of a matter or issue.
2. The application was notified and submissions closed 27 June 2018, 4 submissions were received, 3 who opposed the application, and 1 neither in support or opposition. All submitters indicated they wished to be heard at a hearing. The required meeting was therefore a pre-hearing meeting held under section 99 of the RMA.
3. The final draft meeting agenda, circulated by the Chairperson on 22 July 2018, outlined suggested agenda items for clarification or resolution, and incorporated feedback on earlier drafts of the agenda.
4. Agenda items were confirmed and prioritised by participants at the meeting as follows:
 - a. Preliminary matters
 - b. Previous compliance with conditions of consent
 - c. Effluent storage
 - d. Effluent application methods
 - e. Discharge area
 - f. Environmental effects, including monitoring
5. The meeting was held on 23 July 2018 at Environment Southland, Cnr Price St & North Rd, Invercargill, starting at 2pm.
6. The following participants were in attendance:

Name	Party	Organisation
J Smyth	Submitter	Fish and Game
D Whaanga (part of the meeting) S-R Blair		Te Ao Marama Inc
T Scott L Robertson R Brown		Public Health South

A Ching N Yozin		DOC
H Vernooij	Applicant	
Q Scandrett J Scandrett	Applicant's Agents	
E Allan J Gilroy	Reporting Officer / Consent Authority	Environment Southland
G Cooper	Chairperson	AECOM

7. This report has been prepared by the Chairperson.

Statutory and procedural matters

Requiring and requesting attendance

8. Consent authorities may require persons to attend a meeting only with the consent of the person who made the application. In this case ES required the applicant and all submitters to attend.
9. The applicant's agent requested the meeting by email to Ms Allan on 9 July 2018.

Non-attendance of required persons

10. If persons required to attend a pre-hearing meeting do not attend, the consent authority can decline to process the application and decline to consider the person's submission.
11. Representatives on behalf of the applicant and all submitters were in attendance. No issue regarding non-attendance arises.

Attendance of those delegated to make decisions

12. Section 99(4) states that an officer of the authority who has the power to make the decision on the application may attend, subject to the agreement of all the parties attending and participating, and if the consent authority is satisfied their presence is appropriate.
13. No such as person participated.

Chairperson to prepare this report

14. Section 99(5) and (6) require the chairperson of the meeting to prepare a report outlining particular matters, and to circulate that report to all of the parties and the consent authority (meaning, the commissioners or hearings panel that will hear and determine the application) no less than 5 working days before the hearing.
15. The report must, for the parties who attended the meeting:
 - a. Set out the issues that were agreed; and
 - b. Set out the issues that are outstanding
16. However, the report must not include anything communicated or made available at the meeting on a without prejudice basis.
17. In addition, the report may, for all the parties:
 - a. Set out the nature of the evidence that the parties are to call at the hearing; and
 - b. Set out the order in which the parties are to call the evidence at the hearing; and

- c. Set out a proposed timetable for the hearing.
18. No commentary on the matters in paragraph [17] is provided in this report. These matters are reserved for the direction of the hearing panel. A tentative hearing date is set down for 3-4 September 2018.

Status of this report and next steps

19. Section 99(6) requires the chairperson to send this report to the consent authority and all the parties so that they have it at least 5 working days before the hearing. The report was sent in draft form by email to the parties on 1 August 2018.
20. At the time of writing, no parties have advised that they no longer wish to be heard, and the application is tentatively scheduled to be heard on 3-4 September 2018.
21. Section 99(7) **requires** the consent authority (meaning, the commissioners delegated power of the consent authority by to determine the application) to **have regard to** this report in making the decision on the application.

Introduction

22. The Chairperson opened the meeting and provided an overview of the statutory setting for the meeting. This was followed by introductions by the participants, a health and safety moment, agreement on the outcomes sought from the meeting, and agreement and prioritisation of the agenda items.
23. The agreed outcomes sought from the meeting were:
 - a. To provide information to address submitter's concerns
 - b. To clarify the scope of the application
24. Please note for the purposes of this report, and the informal and without prejudice nature of the meeting, individual participants are not linked to particular commentary. Reference to the applicant includes the applicant's agents. For the most part submitter's are referred to as the collective, rather than a particular submitter. If any conflict arises by grouping in this way, this can be explored further at the hearing.

Preliminary matters

25. It was agreed that no opposition arises in relation to the proposed water take application.
26. ES staff clarified that its section 95 notification report contained an error regarding the discharge permit activity status. The proposed discharge of effluent, and overall activity status, should be assessed as a discretionary activity, not non-complying (the section 104D 'gateway test' will not apply).

Previous compliance with conditions of consent

27. A key issue relates to actual and potential adverse effects of the effluent discharge to land. Submitters expressed concern with the level of previous non-compliance, uncertainty and lack of clarity arising from the evolving nature of the resource consent application, and the limited information and environmental effects assessment to support the proposal (as identified and clarified below). This helped to set the scene from the remainder of the agenda items.
28. Clarification was sought on whether the applicant has a non-compliance history relating to the operation of the dairy farm.

29. The applicant acknowledged an incident in December 2017 where the effluent sump overflowed. Upgrades had been made to avoid future breaches, including an automation system to alert by txt message.
30. ES staff informed the group there had been 16 inspections of the dairy farm. On 12 occasions non-compliance with consent conditions had been identified. These records are publicly available.
31. There was some discussion that the dairy farm didn't comply (past tense), but the situation has improved regarding the farm's operation and no new environmental issues have arisen. It was noted that the previous resource consents to discharge effluent to land expired in 2017, and ES has issued an Abatement Notice to prevent effluent discharge to land. The farm is currently operating without resource consent by trucking away the effluent off-site for disposal.
32. The applicant clarified the proposal consists of:
 - a. No change to farm area previously consented
 - b. No change to stocking numbers
 - c. No change to current effluent storage capacity (no longer proposing to increase this)
 - d. Adding another primary method of irrigation (previous consent allowed for this)
33. There was agreement that the land use for dairy farming on the property is a permitted activity under the relevant planning instruments, and no issue arises in that regard. The primary concern relates to the discharge of effluent to land (either by system failure or application rate and/or depth).

Effluent storage

34. A key issue concerned the adequacy of the current effluent storage pond built in 2012. There was general discussion around the pond's ability to mitigate adverse effects (i.e. by deferring irrigation), particularly during times of high rainfall and/or a low soil moisture deficit. The likelihood of effluent entering surface water (or groundwater) in the event that storage was at capacity and irrigation occurred when the soil had a low moisture deficit was also a key issue.
35. The applicant clarified that the existing effluent pond could store 1,500 cubic litres in total (not the 1,100 cubic litres stated in the original application); of which the pumpable volume is 1,238 cubic litres. Under the previous resource consent 1,200 of storage was required. The dairy farm produces 25.5 cubic litres of effluent per day, the existing pond has 50 days of storage (from empty), and calving starts at the end of August, which is one month later than other farms).
36. While a KlipTank pond was proposed in the original application as additional storage, the applicant suggested that this additional storage if implemented would not achieve a positive outcome. Thus, the preferred alternative mitigation method is to use low rate irrigation (a Larall Smart Hydrant Sprinkler system, which has evolved from the further information response where it was initially planned to run two large sprinklers (pods) from the dairy shed sump).
37. The following matters were discussed:
 - a. Differences between the original proposal and notified proposal.
 - b. Uncertainty if and when consents could be granted.
 - c. Clarification on existing effluent storage tank and sump (x2 at the dairy shed, total = 30 cubic litres, with slurry tanker as contingency).
 - d. Clarification around emergency storage pond – existing storage pond negates the need for emergency storage, and slurry tanker can be used to transport effluent.

- e. Storage pond location:
 - i. Pumped from sump to pond along a distance of approximately 1.3 km, lift of 20 m, pipe diameter 90 mm and well buried;
 - ii. Centred in the middle of the farm discharge area so (slurry tanker) cartage time is reduced, soils in that part of the farm are better suited, location mitigates odour risk.

38. The clarification provided and matters discussed above flowed on to the issues relating to the proposed effluent discharge method. There was general consensus that the need or otherwise for additional pond storage was dependant on the proposed effluent discharge application method.

Effluent application method

39. A key issue related to uncertainty regarding the operation of the (now) proposed use of low rate application pods (x2) combined with the slurry tanker. The financial situation of the property was also discussed, and ES staff requested confirmation of the feasibility of implementing the proposal. It is not necessary to comment on this further; whether this is a relevant consideration in determining the application is best addressed in evidence or at the hearing.

40. The applicant clarified that the following application methods are proposed:

- a. 25 ha – low rate application
- b. 75 ha – slurry tanker application

41. Of the 25 ha identified for low rate application, which represents approximately half of the farm discharge area of particular concern to submitters. Representatives of Te Ao Marama Inc sought clarification that the 25 ha is within the Whitestone Catchment, which was confirmed.

42. Clarification was sought by submitters on the slurry tanker application rate and performance assessment. This was tested under the previous consent. The suitability of this application method was not resolved. While there may be some support in principle for the low rate application pods, there is no information on product, no assessment of effects, and uncertainty remained as to how the low rate application pods would work in combination with the slurry tanker.

43. On several occasions ES staff sought clarification that the low rate application pods would be the primary application method. The applicant proposed that both methods would work together.

44. When questioned on why 25 ha were chosen for low rate application, the applicant confirmed this was largely because of cost-efficiency (while cost efficiency was a large focus, the applicant considers that 25 ha provides enough area to meet the minimum discharge area required of 4 ha/100 cows annually). While the discharge area could potentially be doubled, the costs would increase (such costs were not quantified by the applicant).

45. The discussion returned to the existing storage pond and ES intend to call expert evidence on the existing storage pond's capability.

46. The following key matters remain unresolved:

- a. Submitter's concerns in relation to the 75 ha slurry tanker application area – while there is plenty of potentially suitable flat area, the topography creates higher risk of surface flows.

- b. The lack of assessment of effects on the 25 ha (low rate application) v 75 ha (slurry tanker).
47. Upon questioning from the Chairperson, ES staff clarified that the Regional Land & Water Plan promotes the spreading of adverse effects of effluent discharge, not concentrating effects.

Discharge area

48. The key issues and discussion centred on the lack of information on the soil type in the proposed discharge area, and the potential presence of freshwater springs and unknown sub-surface drains.
49. The applicant confirmed that a 2012 soil report has been undertaken but not provided in the application documents. ES staff confirmed they had a copy of the report, although the onus is on the applicant to provide it as part of their application. This was agreed to as an action point.
50. The soils in the proposed discharge area consist of 90-100% Te Anau soils, with Kakapo soils predominantly in the low areas. The soils have not been re-investigated since 2012, although more tests may allay submitter's concerns. Further information was sought by submitters on the ability of the soils to contain or loose contaminants.
51. The applicant clarified that most of the open drains are now closed. Tile drains are mapped in the application documents.
52. The following matters remain unresolved regarding soil type in the proposed discharge area:
- a. Information supplied v not yet available
 - b. Uncertainty regarding freshwater springs
 - c. Clarity on well drained soils v imperfectly drained soils
 - d. How much nitrates from the farm are escaping down catchment
 - e. Number and location of sub-surface drains in the Te Anau soils

Environmental effects, including monitoring

53. There was agreement that the environmental effects of the proposal can be narrowed to the effluent discharge, not the land use itself for dairy farming. A key issue concerned whether the environmental effects could be adequately mitigated, including monitoring and consent duration.
54. There was general discussion on the following:
- a. Bore location issues, and no groundwater monitoring data from previous consent
 - b. Surface water monitoring, including ES surface water monitoring programme that has now ceased
 - c. After 5 years since previous consent was granted, not much is known about effects
 - d. Financial constraints
 - e. How will soil moisture deficit be calculated (raised several times by representatives from Public Health South) – further information is sought
55. In addition, the applicant raised several matters for clarification, which remain unresolved and are likely to be key issues for the hearing and in making a determination on the application:
- a. How much monitoring is required as part of an application v leaving this to consent conditions?

- b. Farming effect v effluent effect – 350 KgN cycled by stock v 10 KgN from effluent, and how to determine which activity (farming of dairy cows v discharge of effluent) may potentially be having a negative impact on water quality?
56. In relation to monitoring two themes were discussed:
 - a. Monitoring appropriate soil moisture prior to effluent application
 - b. Ongoing monitoring of effects if consent is granted
 57. ES staff signalled to the applicant that based on the application and assessment of effects as it currently stands, the recommendation to the hearing panel would likely be to decline. ES have a blanket internal policy of not suggesting conditions where the reporting officer is recommending to decline. The Chairperson queried whether such an approach would be helpful to the hearing panel determining the application, and suggested that the applicant may wish to consider whether they volunteer consent conditions, including monitoring conditions, as part of the application.
 58. Before wrapping up there was a brief discussion on whether the applicant would consider a shorter term consent duration than the 10 years applied for. While there was a level of support from the applicant and some submitters in principle, consensus could not be reached and this would be unlikely to mitigate the apparent information and effects assessment gaps in the application.
 59. The applicant agreed to provide further information and clarification on the proposal. Several action points were noted.
 60. The Chairperson enquired with ES staff if a hearing date had been set down. While a tentative hearing date has been scheduled for 3-4 September 2018, this is to be confirmed and notice sent to the parties.
 61. Working backwards from that date, ES staff advised that the section 42 evaluation report would need to be circulated by 13 August and completed for printing 1-2 days prior (11/12 August). To provide sufficient time for ES staff and submitters to consider any updates to the application there was agreement that the applicant would need to provide this information within one week following the meeting.

Conclusion

62. The Chairperson thanked all participants for the good level of discussion. During the two hours set aside for the meeting all agenda items were able to be covered. The clarification and information provided by the applicant will hopefully go some way to addressing the concerns of submitters and ES. While some areas of agreement were identified, a number of matters remain outstanding. These mostly relate to information and effects assessment gaps.
63. During the meeting a rolling list of issues were captured on the whiteboard. This list is reproduced as Attachment 1, and should be read in conjunction with the commentary provided in this report.
64. The following action points were noted for the applicant to consider following up:
 - a. Circulate the updated Farm Environmental Management Plan
 - b. Request a letter from the bank
 - c. Confirm the proposal – e.g. update AEE
 - d. Circulate the 2012 soil report
 - e. Circulate information brochure on low rate application pods
 - f. Discuss with ES staff concerns over existing pond calculations and infiltration at dairy shed

- g. Address key issues and information gaps (refer to Attachment 1)
- h. Look at volunteering monitoring conditions as part of the application

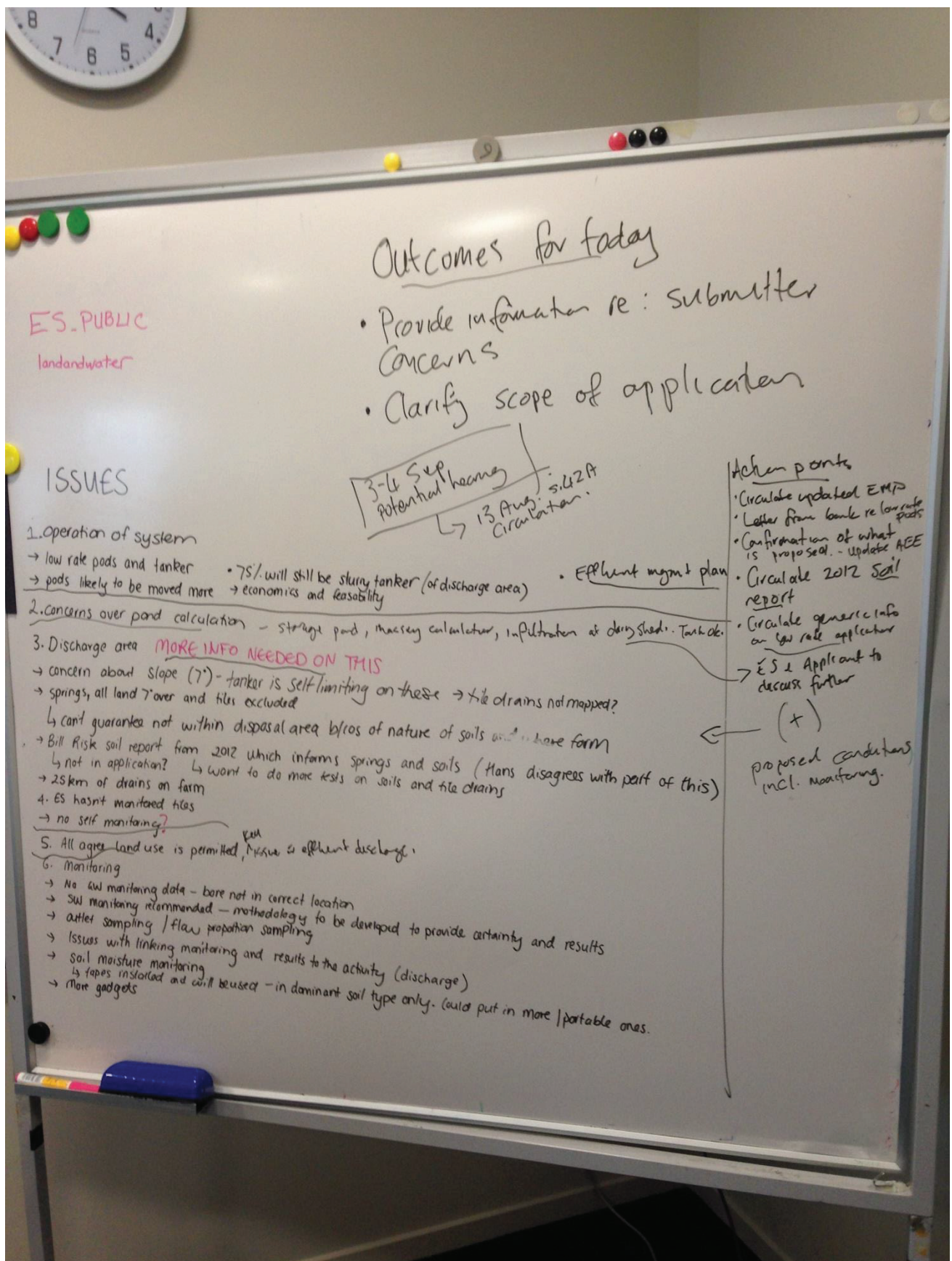
Meeting closed at 4.05pm

The participants were invited to review a draft of this report. On 3 August 2018, the applicant circulated suggested minor or technical changes, which have been accepted and incorporated into this report. No other comments were received. This report is an accurate record of the meeting.



Glen Cooper
Chairperson
Principal Planner, AECOM

Attachment 1 – List of issues (photo of notes captured on the whiteboard at the meeting)



ES - PUBLIC
land and water

Outcomes for today

- Provide information re: submitter concerns
- Clarify scope of application

3-4 Sep Potential hearing
↳ 13 Aug. 5.42 PM Circulation

ISSUES

1. operation of system
 - low rate pods and tanker
 - pods likely to be moved more
 - 75% will still be slurry tanker (of discharge area) → economics and feasibility
 - Effluent mgmt plan
2. concerns over pond calculation - storage pond, masonry calculation, infiltration at discharge. Tank etc.
3. Discharge area **MORE INFO NEEDED ON THIS**
 - concern about slope (7°) - tanker is self-limiting on these → tile drains not mapped?
 - springs, all land over and tiles excluded
 - ↳ cant guarantee not within disposal area b/c of nature of soils and how form
 - Bill Risk soil report from 2012 which informs springs and soils (plans disagree with part of this)
 - ↳ not in application? ↳ want to do more tests on soils and tile drains
 - 25km of drains on farm
 - 4. ES hasn't monitored tiles
 - no self monitoring?
 - 5. All agree land use is permitted, ^{but} issue is effluent discharge.
 - 6. Monitoring
 - No raw monitoring data - bore not in correct location
 - SW monitoring recommended - methodology to be developed to provide certainty and results
 - outlet sampling / flow proportion sampling
 - Issues with linking monitoring and results to the activity (discharge)
 - Soil moisture monitoring
 - ↳ tapes installed and will be used - in dominant soil type only. (could put in more / portable ones.
 - More gadgets

Action points

- Circulate updated EMP
- Letter from bank re low rate pods
- Confirmation of what is proposed. - Update AEE
- Circulate 2012 Soil report
- Circulate generic info on low rate application
- ES & Applicant to discuss further

(+)
proposed conditions incl. monitoring.

12.2 Appendix B: Identified GMP's

White Water Hearing – Good Management Practices (Applicant)

GMP	WW	ES
Farm Management Practices.		
later calving date - due date 1 Sept.		
Modest stocking rate 599 cows / 206 ha eff. = 2.9		
currently plan to milk 500 cows this season.		
Wont increase cow numbers without an increase in pasture growth		
low nitrogen feed supplement used.		
Soil testing annually + nutrient budgets done		
Once a day milking in the shoulders of the season.		
Cows wintered off farm.		
Effluent.		
Efficient water use at the shed. 40L/cow/day		
Once a day or 16hr milkings limit effluent production.		
low rate effluent concentration - pulsed, programmable		
low depth effluent application		
Deferred irrigation based on soil moisture and		
soil temperature.		
Soil moisture sensor on farm		
Climate station on farm		
large effluent area - 16 ha / 100 cows		
Sensitive areas excluded from effluent area		
Buffers include 80m set back from waterway.		
Fail safe system to detect high and low pressure		
on the two transfer pumps.		
High level alarm on both sumps and tank		
Slurry tanker available as contingency storage		
for the sumps		
Slurry tanker desludges sumps and tanks and		
maintains storage volume		
Slurry tanker has been calibrated		
Propose annual nutrient testing of effluent.		
Effluent management plan used.		

12.3 Appendix C: Public Notice

28 May 2018

Our Reference: APP-20181247
Enquiries to: Emily Allan

Dear Sir/Madam

Notice of Receipt of Application APP-20181247 – Public Notification under S95A of the Resource Management Act 1991

The Council has received an application for a resource consent from the following:

**White Waters Limited, Te Anau
Application APP-20181247**

Discharge Permit to discharge dairy shed effluent and calving pad effluent to land from up to 599 cows by slurry tanker at 5mm depth. The proposal is a restricted discretionary activity under Rule 50(d)(ii) of the Regional Water Plan, and is a non-complying activity under Rule 35(d) of the proposed Southland Water and Land Plan (notified version).

Water Permit to take up to 40,000 litres per day of groundwater from a bore in the Te Anau Groundwater Zone. The proposal is a restricted discretionary activity under Rule 23(c)(i) of the Regional Water Plan and a permitted activity under Rule 54(a) in the proposed Southland Water and Land Plan (notified version).

Purpose: Dairy Farming Operation

Location: 893 Kakapo Road, RD 2, Te Anau at about NZTM 2000 1198510E 4959661N

Legal Description of Property: Section 2 SO 385807

Reasons for public notification: The Council must publicly notify an application if the activity will have or is likely to have adverse effects on the environment that are more than minor. It is considered that the effects on the environment will be more than minor for the following key reasons:

- The discharge of effluent to land is not appropriately mitigated as the volume of effluent storage capacity is insufficient to defer effluent irrigation until there is a soil moisture deficit available, the irrigation method is high rate on rolling hill country topography with land over 7 degrees and there are a number of freshwater springs throughout the proposed effluent discharge area.
- The receiving environment is sensitive, with part of the proposed discharge area in the Upukerora River catchment which flows into Lake Te Anau. Lake Te Anau is a statutory acknowledgement area and is classified as a natural state lake.
- The application is inconsistent with policies on water quality in both the Regional Water Plan and the proposed Southland Water and Land Plan.

Address for Service: Dairy Green Ltd, C/- Quinton Scandrett, PO Box 5003, Waikiwi, Invercargill 9843

Full details of this application are also available for inspection at Environment Southland, corner of Price Street and North Road, Waikiwi, Invercargill during working hours (8.00 am to 5.00 pm). Enquiries may be directed to Emily Allan by phone to (03) 211 5115 or by email to emily.allan@es.govt.nz

Submissions on the above application must be received by Environment Southland **no later than 5 pm Wednesday, 27 June 2018**. A submission form is available for download below. Submissions may also be forwarded by email to service@es.govt.nz or esconsents@es.govt.nz

 Submission form

Any person may make a submission on the application, but a person who is a trade competitor of the applicant may do so only if that person is directly affected by an effect of the activity to which the application relates that:

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition.

Submissions must be dated and signed (unless submitted electronically) and must include the following information:

1. your name, postal address and telephone number (and fax number if applicable);
2. details of the application in respect of which you are making the submission;
3. whether it is in support of, or in opposition to the application, or is neutral;
4. your submissions, with reasons;
5. the decision that you wish Council to make; and
6. whether you wish to be heard in support of your submission

and you must also serve a copy of your submission on the applicant as soon as reasonably practicable.

If you require any clarification, please contact this office.

Yours sincerely



Emily Allan
Consents Officer

12.4 Appendix D: Comparison Table

White Water Hearing – Clarification on System Changes

	Application system	Depth (mm)	Rate (mm/h)	Land area (ha)	Storage (m ³)	PUMPABLE
What was proposed	Tanker	5.0	HIGH RATE	103	1238 + 2062 =	3,300
	Total					
What is proposed	Tanker	5.0	HIGH RATE	78	1238	PUMPABLE
	Larall	10.0	1.5	25		
	Total			103	1238	
What could happen	Tanker	5.0	HIGH RATE	78	1238	
	Larall	10.0	1.5	25		
	Total			103	1238	

12.5 Appendix E: Conditions of Consent

FDE discharge conditions

Details of Activity

Purpose:

- To discharge farm dairy effluent from up to 599 dairy cows to land during the milking season (25 August to 31 May) via slurry tanker (primary irrigation method), Larall Smart Hydrant system and umbilical system; and
- To discharge calving pad effluent to land from up to five cows during August, September and October each year via the above effluent discharge system; and

Location:	- site locality	893 Kakapo Road, Te Anau
	- map reference	NZTM 2000 1198265 E,496595 N
	- physiographic zone(s)	Bedrock/hill country.
	- groundwater zone(s)	Te Anau Groundwater Management Zone
	- catchment	Whitestone River catchment (89%), and Upukerora River catchment (11%).
	- FMU	Waiau

Legal description of land at the site: Section 2 SO 385807

Expiry date: 15 October 2023

Schedule of Conditions

General conditions

1. This resource consent is granted for a period of five years;

Note: Pursuant to Sections 123 and 124 of the Resource Management Act 1991, a new consent will be required at the expiration of this consent. The application will be considered in accordance with the plans in effect at that time, and the adverse effects of the proposed activity.)

2. This consent authorises the discharge of dairy shed effluent and calving pad effluent (“agricultural effluent”) onto land, via a land discharge system consisting of a stone trap, sump, storage pond, travelling irrigator, umbilical system and slurry tanker, as described in the application (APP-20181247) for resource consent dated 6 April 2018 and further information dated:
 - (a) Response to s 92 request for further information on 10 May 2018;
 - (b) Information provided following the pre-hearing meeting on 26 July 2018; and
 - (c) Information presented to the consent hearing on 4 September 2018.

3. The activity shall be limited to:
 - (a) Wastewater generated from the management of agricultural effluent generated from milking of up to 599 cows up to twice per day and the discharge of effluent from a calving pad (up to 5 cows) during August, September and October;
 - (b) The discharge agricultural effluent to land via:
 - i. a low rate system sprinkler system;
 - ii. a pressurised tanker; and
 - iii. an umbilical cord application system.
 - (c) The discharge to an area of up to 78 ha and no less than 25 ha in any one year;

Advice Note:

The effluent discharge area shown in Appendix 1 can be altered and/or extended, subject to the approval of the Director of Environmental Management, if the Consent Holder submits a new plan showing the new effluent discharge area, and providing the written approval(s) of any person whose property boundary will be closer to that area. In the event that written approval cannot be obtained, the effluent discharge area can only be amended by way of limited notification.

Routine monitoring inspections of this consent may occur up to two times a year. This number does not include any other required inspections.

4. This consent excludes effluent from winter milking, or any feedlot or wintering pad.
5. The discharge shall not exceed:
 - (a) Low rate application system – a maximum depth of application of 10 mm and a rate of no more than 10 millimetres per hour; or
 - (b) Tanker application system – a maximum depth of application of 5 mm (measured as an average across the wetted area) for each individual application by slurry tanker; or
 - (c) Umbilical application system – a maximum depth of application of 10 mm.
6. The minimum return period for the discharge of agricultural effluent to land shall be 28 days.
7. The tanker application system shall only be used in the months of November to March.
8. The discharge shall not occur when the moisture content of the soils is at or above field capacity nor shall the discharge increase soil moisture above field capacity. To give effect to this condition the Consent Holder shall monitor moisture within the effluent discharge area as follows:
 - (a) within three months of the commencement of this consent the Consent Holder shall install Aquaflex soil-moisture tapes(s) or an alternative device or method of similar accuracy as agreed by the Council's Compliance Manager. The exact monitoring location shall be to the satisfaction of the Council's Compliance Manager;
 - (b) soil moisture shall be measured at one site within the discharge area. The exact monitoring location and depth shall be to the satisfaction and confirmed in writing by the Council's Compliance Manager;
 - (c) the soil moisture data shall be recorded at 30 minute intervals using an electronic datalogger system;
 - (d) within three months of the commencement of the consent the, the Consent Holder shall determine the soil moisture reading that equates to field capacity at the site and report this to the Council's Compliance Manager.

Advice note: *The application depth needs to be less than the soil-water deficit (i.e. the depths above are maximum depths and as soil moisture levels approach field capacity, smaller depths will be necessary to avoid losses of contaminants from the root zone. When soil moisture levels reach field capacity, irrigation will need to cease completely to prevent these losses.)*

9. Nitrogen loading onto any land area as a result of the exercise of this consent shall not exceed 150 kilograms of nitrogen per hectare per year.
10. The Consent Holder shall:
 - (a) prior to commencement of the discharge, install and maintain an alarm system on the effluent storage pond and dairy shed pump sump to warn of the risk of overflow due to high pond levels. Such alarms shall have available above their activation a minimum of 500 mm of freeboard; and
 - (b) prior to use of any irrigation system that operates while in connection with the effluent storage pond, install and maintain an alarm **and** automatic switch-off system that is activated in the event of a system failure, such as but not limited to sudden pressure changes, high pressure or low pressure line pressures.

Exclusions

11. No discharge shall occur:
 - (a) within:
 - i. 20 m of any surface watercourse;
 - ii. 100 m of any water abstraction point;
 - iii. 200 m of any place of assembly or dwelling not on the subject property;
 - iv. 20 m from any property boundaries;
 - (b) on slopes greater than 7°; or
 - (c) when soil temperatures are less than 7°C.

Where there is inconsistency between the plan attached as Appendix 1 and the conditions of this consent, the conditions of this consent shall prevail.

12. The stored or discharged agricultural effluent shall not enter any surface watercourse in any way, including:
 - (a) directly;
 - (b) indirectly;
 - (c) by overland flow;
 - (d) via entrainment by stormwater or run-off; or
 - (e) via a pipe.
13. The stored or discharged agricultural effluent shall not result in any ponding on the soil surface (defined as a depth of wastewater greater than 25 mm depth covering a continuous area exceeding 10 m² or a combined area greater than 20 m² during and following application, or any treated wastewater on the soil surface five hours after application has occurred.
14. The stored or discharged agricultural effluent shall not cause any odour beyond the boundary of the site (see Appendix 1) that is offensive or objectionable in the opinion of the Council's Compliance Officer.
15. Spray drift beyond the boundary of the site shall not occur.

Effluent storage

16. The Consent Holder shall provide a minimum of 1238 m³ of effluent storage capacity for the purpose of:
 - (a) avoiding irrigation of effluent when soils are at or above field capacity;
 - (b) providing a contingency measure when the irrigation system is inoperative; and/or
 - (c) for primary treatment when it is necessary for the proper operation of the effluent disposal system.
17. The Consent Holder shall ensure the volume of effluent retained in the storage pond shall not exceed 178 m³ (being 20 % of the total storage volume) in the month of May.

System management

18. The Consent Holder shall notify the Consent Authority the identity of the Person in Charge of the agricultural effluent disposal system:
- (a) prior to the first exercise of this consent; and
 - (b) no more than five working days following the appointment of any new Person in Charge.

Advice Note: *The person identified by Condition 18 will be the primary contact for Council staff for monitoring purposes and/or in the event of an incident. Nothing in this condition removes or limits the Consent Holder's liability to ensure compliance with the consent and its conditions.*

19. The Consent Holder shall record and make available to the Consent Authority upon request the following:
- (a) The date of any application;
 - (b) The location (paddocks) of any application;
 - (c) The method used for each application; and
 - (d) The volume applied to nominated paddock.
20. The Consent Holder shall maintain:
- (a) an operational alarm that alerts the Person in Charge to any system failure that could cause the over-application, overflow or spilling of agricultural effluent (e.g. sudden pressure drop, irrigator stoppage); and / or
 - (b) an operational automatic switch-off system that prevents any over-application or spilling of agricultural effluent.
21. Where the agricultural effluent reticulation system is installed in such a way that effluent can be siphoned when pumping ceases, the Consent Holder shall install and maintain an anti-siphon device in the agricultural effluent pipeline.
22. In the event of the failure or mismanagement of the agricultural effluent discharge system, or any other event that may result in a discharge of agricultural effluent that may have significant adverse effect on water quality, the Consent Holder shall notify, as soon as reasonably practicable, the following:
- (a) the Consent Authority (ph 03 211 5115 or 03 211 5225 after hours); and
 - (b) Southland District Council (ph 0800 732 732).

Collected Agricultural Effluent Management Plan

23. Within 3 months of this consent being granted, the Consent Holder shall prepare and submit to the Consent Authority a Collected Agricultural Effluent Management Plan. The Collected Agricultural Effluent Management Plan shall:
- (a) provide concise and clear direction to the Person in Charge and other staff on the operation of the agricultural effluent system;
 - (b) identify environmental risks of agricultural effluent discharges specific to the farm including, but not limited to, locations of drains, surface waterways, sub-surface drainage and critical source areas in the agricultural effluent disposal area;
 - (c) identify how the above environmental risks are avoided;
 - (d) describe how each component of the agricultural effluent system is maintained and have regard to the information provided in the pond storage calculations provided in the application;
 - (e) described how the different applications systems are used at different times of the year;
 - (f) describe how effluent application will be managed to avoid slopes over 7°;
 - (g) describe how wet areas within paddocks will be avoided;
 - (h) describe how application uniformity is managed over a paddock to avoid differential nutrient loading rates within a paddock;

24. The Collected Agricultural Effluent Management Plan shall be reviewed annually and the outcome of the review provided to the Consent Authority before the 1st June each year.
25. If amended at any time, the most recent version of the Collected Agricultural Effluent Management Plan shall be provided to the Consent Authority within one month of the amendment.

Monitoring

26. The Consent Holder shall take water samples to be tested for the purpose of monitoring the potential effects of the consented discharge activity. The approximate location of the monitoring points is identified in Appendix 2, with the specific location be to the satisfaction of the Council's Compliance Manager.
27. Specific requirements of the monitoring are:
 - (a) monitoring samples shall be taken from 3 subsurface drainage outlets 3 times each year in the months of August, November and May;
 - (b) the samples will be analysed for:
 - pH
 - electrical conductivity
 - ammoniacal nitrogen concentration
 - nitrate nitrogen concentration
 - dissolved reactive phosphorous concentration
 - E. coli concentration
 - (c) Results of monitoring are to be made available to Council's Compliance Manager in the month following the taking of the samples.

Review of consent

28. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, for the purposes of:
 - (a) Determining whether the conditions of this permit are adequate to deal with any adverse effect on the environment, including cumulative effects, which may arise from the exercise of the permit, and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the permit;
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement;
 - (c) Amending the monitoring programme to be undertaken;
 - (d) Adding or adjusting compliance limits;
 - (e) Ensuring the Waiau Freshwater Management Unit meets the freshwater objectives and freshwater quality limits set in an operative regional plan pursuant to Policy A1 of the National Policy Statement for Freshwater Management; and
 - (f) Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this permit.

Administration and Notification

29. The Consent Holder shall pay an annual administration and monitoring charge to the Southland Regional Council, payable on invoice. This charge may include the costs of inspecting the operation of this resource consent as follows:
 - (a) inspecting the operation four times each year for at least three years from the date of commencement of the consent, and thereafter, with the written approval of the Council's Compliance Manager the frequency of inspection may be reduced to twice per year (or otherwise as in accordance with the Council's Annual Plan).

30. If an event (such as effluent overflow to water, significant over-application on a free-draining area or pond collapse) occurs that may have significant adverse effect on water quality at the abstraction point of a registered drinking-water supply, the Consent Holder shall notify, as soon as reasonably practicable, the following:

Environment Southland's Compliance Manager (ph 03 211 5115 or 03 211 5225 after hours)

Advice Note: The Consent Holder is advised to contact Environment Southland's Compliance Manager in the event of any unexpected event that may result in non-compliance with the conditions of this resource consent or the rules of a regional plan.

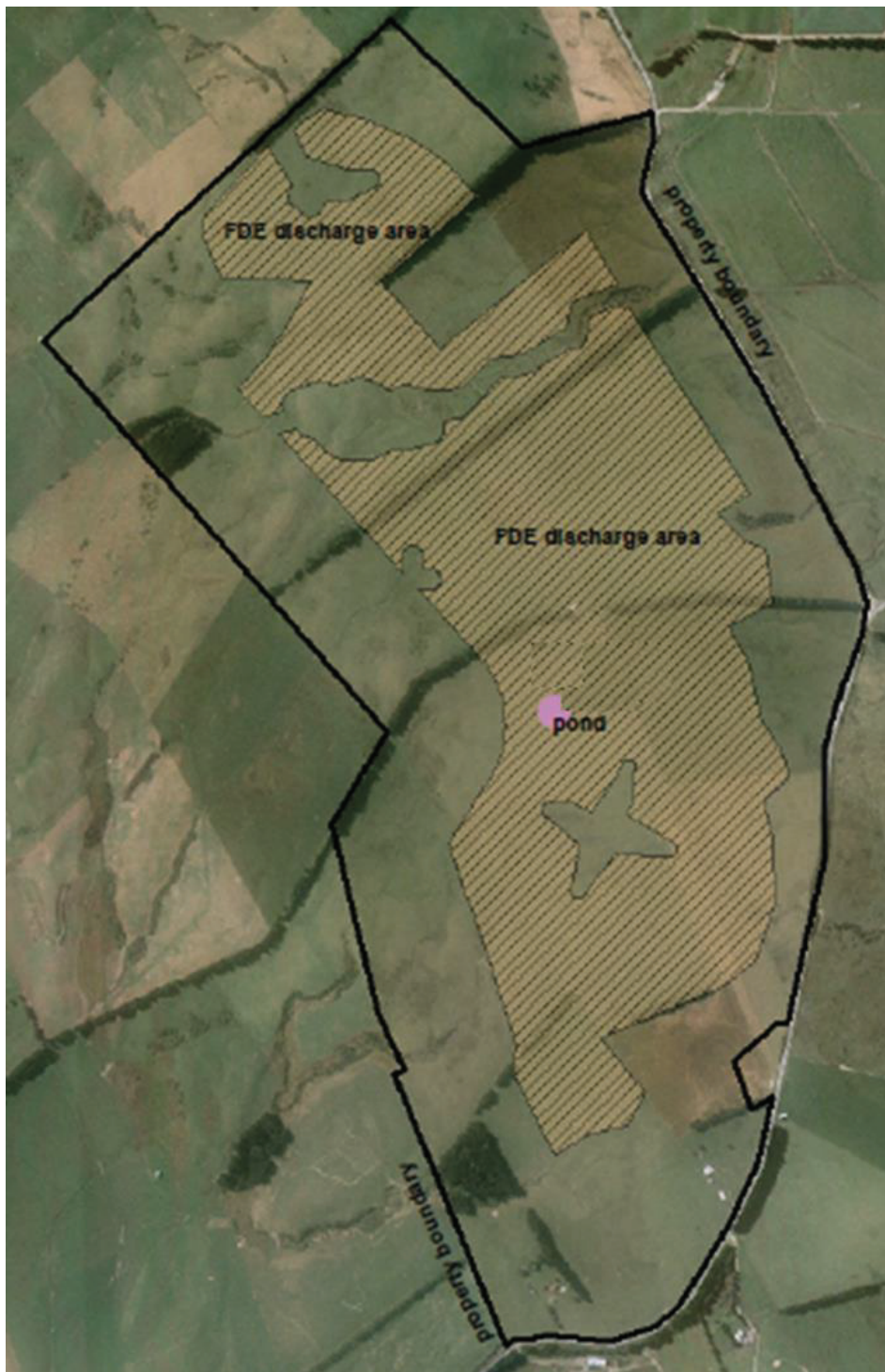
Notes:

1. *The Consent Holder shall pay an annual administration and monitoring charge to the Consent Authority, collected in accordance with Section 36 of the Resource Management Act, 1991, payable in advance on 1 July each year. This charge may include the costs of inspecting the site up to two times each year (or otherwise as set by the Consent Authority's Annual Plan).*
2. *In accordance with Section 125(1)(a) of the Resource Management Act, this consent will lapse after a period of five years after the date of commencement unless it is given effect to or an application is made to extend the lapse period before the consent lapses.*
3. *In accordance with section 126 of the Resource Management Act, 1991, this consent may be cancelled by the Consent Authority if not exercised for a continuous period of 2 years or more.*
4. *The Consent Holder is reminded that they may apply at any time under Section 127 of the Act to have any condition of this consent changed except that which specifies the expiry date of this consent.*
5. *If you require a replacement permit upon the expiry date of this permit, any new application should be lodged at least 6 months prior to the expiry date of this permit. Applying at least 6 months before the expiry date may enable you to continue to exercise this permit until a decision is made, and any appeals are resolved, on the replacement application.*
6. *Dairy shed effluent should not be discharged onto any land area that has been grazed within the previous 5-10 days. Where there has been significant damage to soil during grazing, it is recommended that effluent not be applied until that damage has been repaired.*
7. *Ponding is the accumulation of effluent on the soil surface resulting from the application of effluent to saturated soils, or the application of effluent inducing saturated soil conditions.*
8. *Extreme caution should be taken when applying nitrogen fertiliser to the effluent discharge area. It is recommended that a nutrient budget is used to check that nitrogen and potassium application rates to the effluent disposal area are not excessive.*
9. *The Consent Holder should display, in a prominent place in the dairy shed, a copy of the resource consent and relevant limits about the operation of the effluent disposal system that must be complied with.*
10. *Storage systems should be operated at low levels when conditions for effluent disposal are suitable in order to maintain storage for wet weather periods. In particular, storage systems should be emptied in late summer/early autumn to ensure sufficient storage capacity for the following late winter/early spring period.*
11. *The Proposed Southland Water and Land Plan (pSWLP) was notified by Environment Southland on the 3rd of June 2016. The Council's decision on the pSWLP was publicly notified on 4 April 2018. On and from that date the notified version of the pSWLP is replaced by the decisions version of the pSWLP. Rules within the pSWLP have immediate legal effect, including rules relating to the on-going use of land for dairy farming. Under Rule 20 of the pSWLP, a Management Plan will need to be prepared and developed in accordance with Appendix N of the pSWLP. This plan is to be provided to the Consent Authority upon request.*

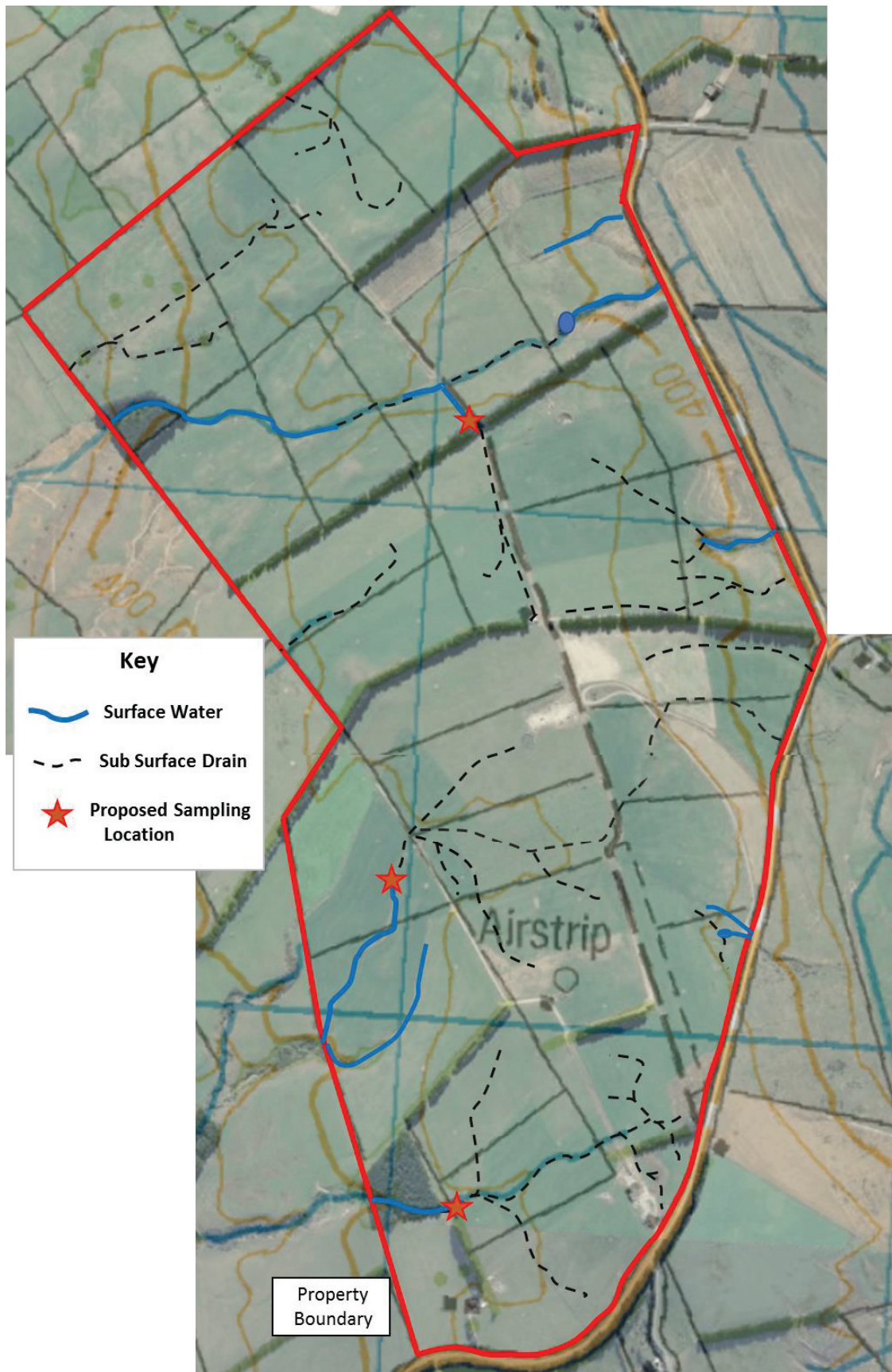
Appendix 1- Effluent discharge area

Appendix 2- Water monitoring sites

Effluent Irrigation Area Map:



Subsurface Drainage Location Map:



Water take conditions

Details of Activity

Purpose:

- To take and use up to 40,000 litres of groundwater for the purpose of dairy shed washdown and stock drinking purposes.

Location	- site locality	893 Kakapo Road, Te Anau
	- map reference	NZTM 1198265 E 496595N
	- physiographic zone	Bedrock/hill country.
	- groundwater zone(s)	Te Anau Groundwater Management Zone
	- catchment	Whitestone River catchment (89%), and Upukerora River catchment (11%).
	- well number	Bore – D43/0108

Legal description of land at the site: Section 2 SO 385807

Expiry date: 15 October 2023

Schedule of Conditions

- This resource consent is granted for a period of five years;

Note: Pursuant to Sections 123 and 124 of the Resource Management Act 1991, a new consent will be required at the expiration of this consent. The application will be considered in accordance with the plans in effect at that time, and the adverse effects of the proposed activity.)

- The permit authorises the taking of groundwater at the location specified above. The rate of abstraction shall not exceed:
 - 2 litres per second; and
 - 40 m³ per day.
- Prior to the first exercise of this consent, the Consent Holder shall install a backflow prevention device or take other appropriate measures to ensure water and/or contaminants cannot return to the water source.
 - Prior to the first exercise of this consent, the Consent Holder shall install a water meter at White Waters Limited of 893 Kakapo Road, Te Anau, to record the water take, within an error accuracy range of +/-5% over the meter's nominal flow range.
 - The water meter shall be installed in a straight length of pipe, before any diversion of water occurs. The straight length of pipe shall be part of the pump outlet plumbing, easily accessible, have no fittings and obstructions in it. There shall be a straight length of pipe on either side of the water meter, on the upstream side there shall be a distance that is 10 times the diameter of the pipe and on the downstream side there shall be a distance of 5 times the diameter of the pipe. The Consent Holder shall ensure the full operation of the water meter at all times during the exercise of this consent. All malfunctions of the water meter during the exercise of this consent shall be reported to the Consent Authority

within five working days of observation and appropriate repairs shall be performed within five working days. Once the malfunction has been remedied, a Water Measuring Device Verification Form completed with photographic evidence must be submitted to the Consent Authority within five working days of the completion of repairs.

- (c)
 - (i) If a mechanical insert water meter is installed it shall be verified for accuracy each and every year from the first exercise of this consent.
 - (ii) Any electromagnetic or ultrasonic flow meter shall be verified for accuracy every five years from the first exercise of this consent.
 - (iii) Each verification shall be undertaken by a Consent Authority approved operator and a Water Measuring Device Verification Form shall be completed and supplied to the Consent Authority with receipts of service. These shall be supplied within five working days of the verification, and at any time upon request.
 - (d) The Consent Holder shall provide maintain a record of the total volume of water abstracted each month. The Consent Holder shall provide this record to the Consent Authority by 31 May each year and at any other time on request.
4. Prior to the exercise of this consent, the Consent Holder shall notify the Consent Authority of the person who is in charge of the operation this consent. If the person in charge changes during the term of this consent, the Consent Holder shall notify the Consent Authority of the new operator no later than five working days after that person takes responsibility.
5. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purposes of:
- (a) adjusting the consented rate or volume of water under Condition 1, should monitoring under Condition 3 or future changes in water use indicate that the consented rate or volume is not able to be fully utilised;
 - (b) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;
 - (c) ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement; or
 - (d) adjusting or altering the method of water take data recording and transmission.

Notes:

1. *In accordance with Section 125(1)(a) of the Resource Management Act, this consent shall lapse after a period of five years after the date of commencement unless it is given effect to or an application is made to extend the lapse period before the consent lapses.*
2. *Section 126 of the Resource Management Act provides for this resource consent to be cancelled if the consent has been exercised in the past but has not been exercised during the preceding five years.*
3. *If you require a replacement permit upon the expiry date of this permit, any new application should be lodged at least six months prior to the expiry date of this permit. Applying at least six months before the expiry date may enable you to continue to exercise this permit until a decision is made, and any appeals are resolved, on the replacement application.*

4. *The Consent Holder shall pay an administration and monitoring charge to the Consent Authority collected in accordance with Section 36 of the Resource Management Act, payable in advance on 1 July each year.*