APPLICANT: TOTARA FARMING LTD

REPORT OF CATHY BEGLEY

Consent ID	Description	Table 3 Location	Table 5 Location
CRC020584	To divert take and use up to 50 L/s and up to 4,320m^3 per week from Scrubby Creek. To take and use up to 19L/s from an irrigation race for the irrigation of up to 34 ha of crop and pasture.	All other rivers and streams	Upstream of Waitaki Dam, but not upstream of the outlets of glacial lakes.

Activity Status

Rule 2, Table 3 WCWARP: No allocation limit is specified for "all other stream", and the minimum flow has been determined as the 1 in 5 year, 7 day low flow required in the WCWARP.

Rule 6, Table 5 WCWARP: The proposed annual volume is within the allocation limit for "Upstream of Waitaki Dam, but not upstream of the outlets of the glacial lakes.

Overall status: Any activity that complies with Rules 2 and 6 is a discretionary activity under Rule 15

Consent ID	Description
CRC031315	To discharge up to 50 L/s of unused irrigation water to Camp Creek. .

Activity status

TRP: There is no operative Regional Plan so S77C of the RMA applies, and the activity is considered to be a discretionary activity.

As the application was lodged before the pNRRP was notified, it is inappropriate to use this planning document to determine the status of the application.

Overall status:: Discretionary

1 PROPOSAL

1. Totara Faming Ltd (heron in referred to as "the applicant") applied for CRC020584 on the 19 September 2001. This application seeks the ability to divert up to 50L/s from Scrubby Creek into an irrigation race, then take up to 19L/s from this irrigation race for the spray irrigation of 34 ha of land. The applicant subsequently applied for CRC031315 on the 28 February 2003 to allow for up to 50 L/s to be discharged from the irrigation race into Camp Creek.
2. The area to be irrigated is shown on the plan contained in Appendix A.

1.1 Timeline and Summary of Amendments made

Timeline	CRC020584	CRC031315
Date of Lodging	19 September 2001	28 February 2003
Notifiable Date	30 September 2003	30 September 2003
Public Notification	4 August 2007	4 August 2007

3. As outlined above the application to divert, take and use water from Scrubby Creek was lodged on 19 September 2001. Between October 2001 and August 2009 the CRC made a number of requests for further information, which sought to ensure that all necessary resource consent applications had been made and to clarify a number of matters associated with the applications. These requests resulted in the applicant applying for the necessary discharge permit in 2003 along with providing further information on the following matters:

- Specific minimum flows for Scrubby Creek;
- An annual volumes for the proposed take;
- An assessment of the use of water on the water quality within the Mackenzie Basin;
- An assessment of irrigation on landscape values within the Mackenzie Basin;
- Whether additional consents are required for stockwater;
- Providing derogation approval from Meridian Energy Ltd.

1.2 Water Source

4. Scrubby Creeks can be described as a small stream draining a small catchment (approximately 7km^2) located on the eastern slops of the Benmore Range. The stream flows from these slopes into Lake Benmore. The applicant has advised that in some years the stream goes subsurface before reaching Lake Benmore. The applicant has observed a number of "small fish" in both Scrubby Creek, and the irrigation race. Given the lack of connection to Lake Benmore, it has been assumed that these are native fish (such as bullies) rather than trout and/or salmon.

2 BACKGROUND INFORMATION

2.1 Farm Details

5. The applicant operates a 4,937 ha high country run located on Falstone Road and extends from the shores of Lake Benmore in the east to the Benmore Range to the west. Of the 4,937 ha only approximately 68 ha is "flat" with the remaining land being steep country.

6. The applicant notes that the application lodged in September 2001 sought to "replace" WTK86511, WTK86512 ad WTK86513 which all expired in June 2001. The previous consents allowed the applicant to divert water from Scrubby Creek into an irrigation race, take water from this race to irrigate 12.5 ha of land and then discharge the excess water into Camp Creek.

7. Until 2007, the applicant was under the, albeit incorrect, impression that their application was a renewal of the existing permit (set out above) and as such they could continue to irrigate while their application was being processed. In 2007 the applicant was served an abatement notice, requiring them to cease irrigating. The applicant has abided by this notice.

8. Irrigation has been (until 2007) occurring on the property for approximately 30 years, and as a result, the way in which the farm is operated relies heavily upon the ability to irrigate. Primarily the irrigation had enabled the applicant to produce sufficient supplementary feed for stock over the winter months, thereby taking the pressure off the fragile sunny faces which are now relied upon to provide all the necessary winter feed.

9. Having the irrigated paddocks had enabled the applicant to wean replacement stock and retain them on the property. Without the irrigation this has become increasingly difficult to the point where farming the land is no longer viable. Just how difficult farming the property without irrigation is was highlighted

in the 2007/2008 year. During this time the applicant was unable to produce any winter feed. This meant that they had to sell their replacement ewe hoggets on a very depressed market gaining $20.00 per head and also loosing any income from their fine wool (around $31.50 per head based upon each producing 3.5 kg of fine wool being sold at $9.00 per kg). To retain the stock on farm would have cost the applicant $56.00 per head due to having to buy in supplementary feed and labour costs. To replace these stock is now estimated to cost $80.00 - $90.00 per head.

10. Even with selling the hoggets, the applicant was unable to maintain the weathers in good condition resulting in the applicant having to sell the "lean" stock on a very depressed market. The applicant put off for as long as is possible selling the hoggets. To do this they delayed weaning so that the hoggest could get the "best" pasture. This meant that the lambs were on their mothers for longer than is considered to be ideal. It also meant that the ewes were not flushed onto the good paddocks, which resulting in having to purchase additional supplementary feed for them at a cost of $6,000.00. All of this has resulted in a lower lambing percentage and wool weights during the 2008/2009 season.

11. As a result of not having irrigation, and the uncertainty as to whether irrigation will ever be back on the property, the applicant has had to completely change the way in which they farm. In particular they have moved away from fine wool and now have put terminal sires over the enter flock to try and gain heaver lamb weights at weaning. These lambs are then on-sold as store lambs. The store lamb market is highly volatile as during dry years this market is used by many farmers to "get rid" of stock thereby flooding the store lamb market.

2.2 McKenzie Irrigation Company Shares held

Name: Totara Farming Ltd	**Number**
Property Shares	1
Irrigation Shares	34

12. Irrigation shares are required for the area to be irrigated as this consent is a new consent.

2.3 Derogation Approval

13. Derogation approval was obtained in standard format from Meridian Energy Limited on 11 September 2009

3 COMMENTS ON SUBMISSIONS

14. These applications were notified in 2003, as part of the "ministerial call-in". They were notified again in 2007 and a summary of the submissions is as follows:

Resource Consent	**Submissions in support**	**Submission in opposition**	**Neutral**
CRC020584	1	11	2

15. Details of the submissions made in response to all applications that were publically notified at the same time in 2003 and 2007 are contained in CRC Report 1, Appendix 5. I have reviewed this report and adopt it as a true and accurate summary of the submissions received.

16. Details of the submissions received that are not common to all applications are as follows:

Submitter	Issues	Support/ neutral/ oppose
LINZ	The submitter has highlighted that some of the areas to be irrigated are subject to Crown Pastoral Lease. To enable the irrigation to occur the terms of the lease may need to be changed.	Neutral
Meridian Energy Ltd	The effects on water quality and flow metering requirements.	Oppose
Central South Island Fish and Game Council	Request a minimum flow of the 1 in 5 year, 7 day low flow.	Oppose

17. With repsect to the LINZ submission, the applicant notes that the area to be irrgated is a mixture of freehold alnd or land they lease from the Universtiy of Canterbury. Given this, additional consents from LINZ is not requred.

18. As outlined above, Meridian Energy Ltd have provided derogation approval and due to the fact that the applicant does hold sufficient MIC Shares to irrigate the 34 ha of land. Further the applicant is proposing that the take be metered in accordance with the WCWARP. With respect whether the take will impact upon water quality, this aspect is addressed in section 4.4 of this evidence.

19. With respect to F& G's submission, the applicant is proposing a minimum flow of 30 L/s to be measured on Scurbby Creek. F & G have agreed that the proposed minimum flow is appropriate.

4 CRC020584 -– TO DIVERT, TAKE AND USE WATER -ASSESSMENT OF ENVIRONMENTAL EFFECTS

4.1 Effects on other water users

Effects on other water users	
Comments	The CRC reporting officer agrees that effects on other users will be minor.

20. There are no other surface water abstractors either up or downstream of the proposed point of diversion or take. This is due to the fact that the land through which the Scrubby Creek flows (from its source in the Benmore Range to Lake Benmore) is controlled by the applicant. Given this, the diversion and take from Scrubby Creek will not impact upon any other water user or person whom relies upon this stream for other purpose such as domestic and stock water.

21. These proposed takes sit within the area defined as Upstream of Waitaki Dam, but not Upstream of the outlets of the Glacial Lakes in Table 5 of the WCWARP. This table sets a cumulative allocation of 275 million m^3/year for this area. Ms Bartlett's in her *Report 3 – Annual Allocations to Activities (Rule 6 Table 5)* acknowledges that the granting of the applications subject to this hearing will not result in the cumulative allocation limit of 275 million cubic meters per year will not be exceeded.

22. Further, the applicant has gained derogation approval form Meridian Energy Ltd and as such the granting of the proposed takes will not impact upon it's existing consents to take and use water within the catchment for power generation.

4.2 Effects on instream values

Minimum flow requirements		
Proposed Environmental Flow Regime		All other rivers and streams
Comments	A minimum flow of 30L/s as measured upstream of the proposed point of diversion is proposed. The CRC reporting officer agrees that the effects on aquatic ecosystem will be minor.	

23. Table 3 of the WCWARP does not set a specific minimum flow regime for Scrubby Creek rather it provides a formula by which a minimum flow is to be determined. This formula requires the minimum flow to be the 5-year 7-day low flow and should be set at the downstream end of the catchment.

24. As outlined in Mr Boraman's evidence, it has been calculated that the 5-year 7-day low flow for Scrubby Creek is 30L/s. I understand that both Mr Sewart (the CRC hydrologist) and Mr Scarf (F & G hydrologist) agree that 30L/s is acceptable. Further Mr Boraman has proposed a monitoring point for the minimum flow which is located above the diversion point. While it is acknowledged that Table 3 of the WCWARP specifies that minimum flows should be measured at the downstream end of the stream, as outlined in Mr Boramns's evidence from a hydrological perspective having the minimum flow measured at the downstream end of the stream (i.e. just before it reached Lake Benmore) is in appropriate and that the proposed measuring point is the "best available" on this stream.

25. I also note that Ms Penman in *Attachment 4 of Report 2A – Environmental flow and level regimes – Overview report* recommends a minimum flow of 30L/s and a flow sharing regime for Scrubby Creek whenever the flow in the river is between 80L/s and 30L/s. Ms Penman states that the reasons for the flow sharing is to "…*ensure that the minimum flow will be retained at the downstream end of the catchment as far as possible*…" (Page 21).

26. In this particular situation, the monitoring point for the minimum flow is located upstream of the point of diversion from Scrubby Creek. I also note that Ms Vessey in her report stats that she is unsure of the rotational as to why the diversion of 50L/s is required all year around. The division is required for three reasons, firstly to provide domestic water to the applicant. The applicant takes this domestic water at the point at which the water is discharged into Camp Creek. Secondly, having water moving through the channel all year around is particularly important. Especially over the winter months, as if there is insufficient flow within the channel the channel could freeze, thereby, "cutting off" the applicants domestic water. The third reason is that it also provides stockwater and for the same reasons as set out above, a certain rate of water is required to flow through the race. Lastly it provides irrigation water to enable the applicant to irrigate their 34 ha of land.

27. I note that Ms Penman has recommend a flow sharing regime for the diversion of water. However, as outlined above, the applicant uses this diversion to supply not only stock but also domestic water. I note that Rule 2 (2) allows water to be taken for domestic and stockwater without having to comply with flow sharing and minimum flow requirements. Therefore, it would appear that the minimum flow requirement should only apply to the taking of water for irrigation purposes, rather than the diversion of water required for domestic and stockwater supply.

28. When water is taken either directly from a waterbody or an irrigation race that has been in place for some time, without an appropriate fish screen in place, there is the potential for the aquatic values of that waterway to be adversely affected. With respect to the existing diversion structure on Scrubby Creek there is no fish screen in place. In some circumstances, such races can provide significant aquatic habitat which can be impact upon if fish screens are installed at the point of diversion. In this particular situation, there is an existing fish screen in place, not at the point of diversion, but at the point at which water is taken from the irrigation race. The applicant is proposing a mitigation measure which would require them to "as far as is practicable" exclude fish from entering the intake. To this end, prior to the exercising of this consent, the applicant will have their existing fish screen audited and certified to ensure that their fish screen as far as is practicable excludes fish and is in general accordance with the report *Fish Screening: good practice guidelines for Canterbury, NIWA Client Report: CHC2007.092, October 2007*.

4.3 Effects of inefficient water use

Reasonable and Efficient Use Seasonal Volumes and Land Us	
Land Use	Mixed (cropping, and pasture for fattening sheep and beef cattle)
Area to be irrigated (hectares)	34 ha
Method of application	Spray
Daily application depth	3.8 mm
Return period	6 days
Application depth	22 mm
Soil profile available water	Pukaki Soils - 45 mm
Effective Irrigation Season Rainfall	170 mm
Seasonal volume required (m^3/year)	75,000 m^3/year
Seasonal volume Schedule WQN9v2 (m^3/year)	219,300 m^3/year
Volume to be included in Table 5 (WCWARP) allocation	75,000 m^3/year
Comments	The proposed annual volume is based upon the volume held under previous consents. Schedule WQN9v2 is 219,300 m^3/year which is more than the proposed annual volume.

29. Traditionally two methods have been used to determine whether the use of water for irrigation is efficient. The first method is ensuring that the peak application rate is no more than half the water holding capacity of the soil. The second method by through the implementation of an annual volume using one of the two methods set out in Policy 16 (c) of the WCWARP

30. The applicant will be applying no more than 22 mm per 6 days which is not more than half of the average water holding capacity of the soil and as such is considered to be an efficient use of water.

31. This application proposes an annual volume of 75,000m^3/year which is based upon the annual volume held under previous consents. I note that using the methodology set out in Policy 16 (c) (ii) an annual volume of 219,300m^3/year would be acceptable. The latter annual volume is based upon mean rainfall of 170 mm/ha/year and the soils requiring 815 mm/ha/year. As the proposed annual volume is less than the volume determined under Policy 16 (c)(ii) the use of water is considered to be efficient.

32. I note that Ms Vessey has questioned whether the applicant needs to divert up to 50l/s all year around. The reason for seeking the diversion all year around is that the applicant uses the diversion to provide for their domestic water. This is taken at the point where the race discharges into Camp Creek. A flow of at least 50l/s is required over the winter months to ensure that water reaches the point at which the applicant takes their domestic water, as a lesser flow rate could result in the race freezing over the winter months, thereby, “cutting off” the applicants domestic water supply.

33. Policy 21 of the WCWARP requires all water takes to be metered. To ensure that this application is consistent with this policy, the applicant proposes to meter their take.

4.4 Effects of the use of water on water quality

Water Quality	
Comments	The CRC reporting officer for these applications is not currently satisfied that effects of water quality are minor. Cumulative effects on water quality have been addressed by Mackenzie Water Resources Limited (MWRL) and are summarized below. Local effects have also been addressed below

34. The MWRL Water Quality Study states that the areas to be irrigated are located within the Lake Aviemore and Lake Waitaki Catchments. This study goes on to calculate N and P thresholds for the property.

35. The calculated nutrient mitigation requirement of the receiving environments determined in the MWRL Study has identified the N and P thresholds for the property. These are shown in the table below.

36. OVERSEER® has been run by a qualified person to model the N and P outputs from the proposed farming system. The results of the model have been incorporated in to the table below. This table shows that the applicant can meet the property thresholds which are the most restrictive.

	Nitrogen Threshold (kg/Farm)	**Phosphorous Threshold**
MWRL Water Quality Study Property Thresholds	13,451	310
OVERSEER® outputs	11,165	217

37. The applicant is committed to implementing the "Mandatory Good Agricultural Practices" set out within the Farm Environmental Management Plan (FEMP) (see Appendix D). Implementing these practices ensure that the OVERSEER® results are validated. This along with ensuring that the property thresholds of the WQS (set out in the table above) are not exceeded will ensure that the cumulative effects of the use of water for irrigation on water quality are no more than minor.

38. Whilst the applicant is able to comply with the thresholds outlined within the MWRL Water Quality Study, this study also identified that the applicant still has to consider specific on farm effects and the impacts these activities could have on the local receiving environment. This requires a specifically developed Farm Environmental Management Plan (FEMP) to identify and implement appropriate mitigation measures set out in the draft attached (see Appendix D).

39. At a workshop held in Twizel in August 2009, the applicants met with Ms Melissa Robson of GHD Limited. A "desk top" on farm risk assessment was undertaken. This is considered to be the "starting point" of the FEMP.

40. The workshop identified potential on farm risks specific to each farm along with possible mitigation measures. The on farm risks identified during the desktop risk assessment need to be verified by an appropriately qualified person who has carried out a site visit. It is anticipated that this will occur should the application be granted.

41. For Totara Peaks Station, the desktop risk assessment identified the following potential risks:

- The large number of surface water bodies that flow through the property;
- Extensive tracking;
- Use of full cultivation;

42. The applicant has committed to implementing the FEMP including an on farm risk assessment, appropriate mitigation, monitoring and auditing before the first exercise of this consent. The FEMP has been proposed as condition of consent and the draft FEMP is attached (see Appendix D).

43. Given that the N and P thresholds from the MWRL Study can be met, and the applicants commitment to addressing on farm risks with the implementation of the FEMP, the effects of the use of water on

water quality for both the local receiving environment and cumulative effects are considered to be minor.

4.5 Effects on landscape values

Effects on Landscape	
Comments	Landscape effects have been addressed by UWAG's Landscape Architect, Mr Andrew Craig, who considers that this proposal will have a minor effect on landscape values. The CRC reporting officer for these applications considers the effects on landscape are uncertain and may therefore be more than minor

44. Submissions have been received which state that the Mackenzie Basin as a whole is considered to be an "outstanding natural landscape". These values could be impacted upon through the irrigation of land. The area to be irrigated under this application is located adjacent to Falstone Road, on the western shores of Lake Benmore. The area is located some 4 km to the south of Ohau C power station and at least 15 km from the Twizel - Omarama Road (SH 8).

45. Mr Andrew Craig will provide further evidence as to whether the irrigation of this area will impact upon the landscape values of the area and as such I do not propose to repeat his assessment here. Mr Craig has concluded that the general effects on the Mackenzie landscape of these applications will be significantly less than minor. Given this, the effects of the proposed takes on landscape values is considered to be minor.

4.6 Effects on Tangata Whenua Values

Effects on Tangata Whenua	
Comments	The CRC reporting officer for these applications considers the effects on Tangata Whenua are uncertain and may therefore be more than minor

46. Te Runanga O Ngai Tahu submitted on all applications in the catchment, seeking that all applications be declined. The primary reasons for this were that the applications were considered to be inconsistent with the policies and objectives of the WCWARP, and also at odds with the cultural objectives of the RMA.

47. It is acknowledged that Te Runanga O Ngai Tahu have a significant relationship with the Waitaki Catchment, and as such, appropriate minimum flow conditions, and management of water quality effects is proposed by the applicant to ensure that the potential effects on the environment, including tangata whenua values are minor.

4.7 Effects on People, Communities and Amenity Values

Effects on Tangata Whenua	
Comments	The CRC reporting officer for these applications considers the effects on Tangata Whenua are uncertain and may therefore be more than minor

48. The applicant has proposed an appropriate minimum flow condition for the water body from which they have applied to take and use water. A minimum flow is considered to adequately protect people, community and amenity values within the rivers specific to each applicant.

49. The activities all occur within a rural setting, where the dominant land use is pastoral farming. And, given that the proposed activities all occur on private farmland the use of water is unlikely to adversely affect amenity values.

50. The WCWARP sets an annual allocation "cap" for agricultural and horticultural activities within defined areas (Table 5). The applicant has proposed an annual allocation limit for their own resource consents for the use of water, as well as implementing Farm Management Plans, which require existing irrigation systems to be audited and improved where possible, and new systems to be designed and installed by accredited personnel, and implementing initiatives to ensure that water is used wisely.

51. The primary objective of an annual allocation is to ensure that the water is used efficiently and effectively for the land use, soil type and climatic conditions. The applicant has proposed an annual volume that is considered to reflect reasonable and actual use and this is within the allocation limit defined by Table 5.

52. Therefore, given the applicant's commitment to ensuring efficient use of water on their properties, and that the take is within allocation limits set to protect in-stream values and other users, it is considered that effects on people and communities will be minor.

5 CRC031315 – TO DISCHARGE WATER INTO WATER - ASSESSMENT OF ENVIRONMENTAL EFFECTS

5.1 Effects of the discharge on water quality

53. This application seeks the ability to discharge the excess irrigation water from the irrigation race in to Camp Creek. As the irrigation race is unfenced, it is possible for stock to have access to the race for drinking. Depending upon the composition of the stock on the property and stocking ratio, it is possible that the water quality of the water contained within the race could be degraded. The discharge of this degraded water into the receiving water (of a higher quality) could have a negative impact upon the aquatic ecosystem present in the waterway. Further Section 107 (1) of the Act requires discharges, after reasonable mixing must meet a number of water quality standards. These standards included, amongst other things *"…Any significant adverse effects on aquatic life…"*

54. There is very little information on the aquatic values associated with Camp Creek. However, in saying this, the discharge from the irrigation race has been occurring for a number of years (since at least the 1970's) and is the main source of flow in the lower reaches of Camp Creek during the summer months. This aspect has been identified as an environmental farm risk and will be addressed as part of the environmental farm management plan which will ensure that the effects of the discharge after reasonable mixing are minor.

5.2 Effects of the discharge on other water users

55. When water is discharged there is the potential to cause adverse effects on the recreational users of river/stream due to the contamination of the water. Contaminants such as suspended sediments (turbid water) affect recreational users because turbid water is aesthetically unappealing and unsuitable for bathing and other contact recreation.

56. As set out above, Section 107 (1) of the Act requires discharges, after reasonable mixing meeting a number of water quality standards. These standards included, amongst other things do not allow discharges that results in *"…conspicuous oil or grease films, sums or foams or floatable or suspended materials…". …" or "…The rendering of fresh water unsuitable for consumption by farm animals...".*

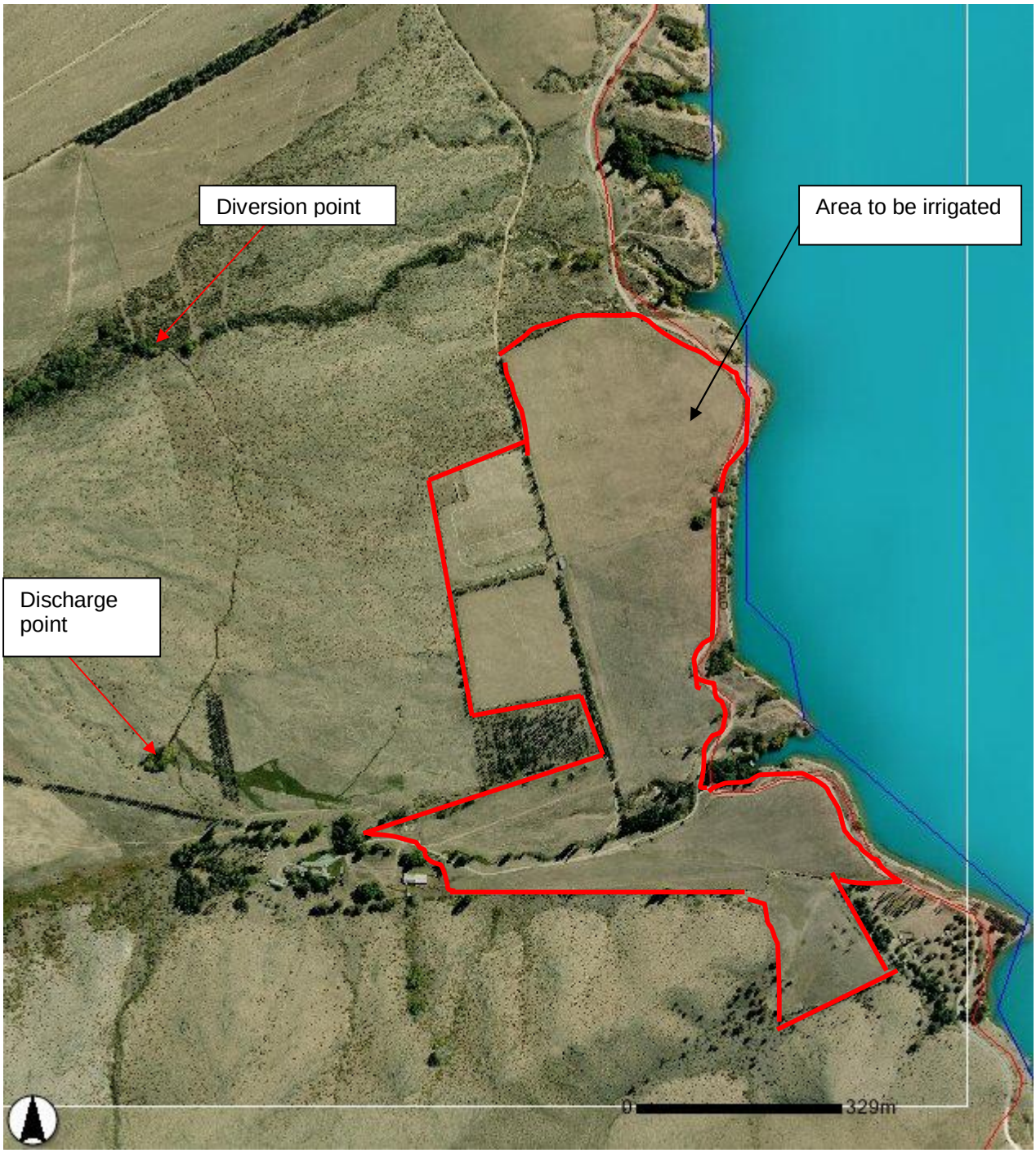
57. There are no other persons downstream of the point of discharge that rely upon the Camp Creek for either their domestic or stockwater supply. This is due to the fact that the land through which the Camp Creek flows (from its source in the Benmore Range to Lake Benmore) is controlled by the applicant. Given this, the discharge of water into Camp Creek will not impact upon any other water user or person whom relies upon this stream for other purpose such as domestic and stock water.

5.3 Effects of discharge of water on erosion of the bed and banks of the receiving waterbody

58. When water is discharged into a waterway, the flow, and potentially the velocity, of the receiving waterbody is increased, thereby increasing the rate at which the bed of the waterway is eroded. In this particular instance, the discharge from the stockwater race, into the lower reaches of the Camp Creek has been undertaken for a number of years without the bed of the Camp Creek being eroded.

59. I note that Ms Vessey recommends that the applicant monitors the point of discharge, and should the bed or banks of the stream at this point start to erode, that action is undertaken to remedy the problem. This aspect has been identified as an environmental farm risk and will be addressed as part of the environmental farm management plan which will ensure that the applicant actively monitors the point of discharge for an increase in erosion. Should any erosion be detected measures will be undertaken to remedy the problem.

APPENDIX A – RELEVANT PLANS



APPENDIX B – PHOTOS

APPENDIX C – PROPOSED CONDITIONS

CRC020584 – TO DIVERT, TAKE AND USE WATER

<table>
<tr><th>No.</th><th>Condition Code</th><th>Details</th></tr>
<tr><td colspan="3">Divert</td></tr>
<tr><td>1</td><td>WP01</td><td>Name of waterbody: Scrubby Creek
Map reference: NZMS 260 H39:855-440
Instantaneous rate: 50 litres per second
Volume: 4,320 cubic metres per day</td></tr>
<tr><td colspan="3">Take</td></tr>
<tr><td>2</td><td>WP01</td><td>Name of waterbody: water race
Map reference: NZMS 260 H39:855-440
Instantaneous rate: 19 litres per second
Volume: 1,642 cubic metres per day and 75,000 cubic metres between 1st July and the following 30th June</td></tr>
<tr><td></td><td></td><td>Water may only be taken between 1 September and the following 30 April and only in accordance with the maximum rate, daily volume (being from 12.01am to 11.59pm) and annual volume (measured between 1 July and the following 30 June) set out in Table A. Clause 15.3(d)

Table A – Maximum Rates & Volumes
<table>
<tr><th>Year</th><th>Maximum rate of abstraction (litres / second)</th><th>Maximum Daily Volume (cubic metres / day)</th><th>Maximum Annual Volume (cubic metres / year)</th></tr>
<tr><td>1 September 2009 to 30 April 2010</td><td>19 l/s</td><td>1,641.6 m^3/day</td><td>75,000 m^3/annum</td></tr>
<tr><td>1 September 2010 to 30 April 2011</td><td>19 l/s</td><td>1,641.6 m^3/day</td><td>75,000 m^3/annum</td></tr>
<tr><td>1 September 2011 to 30 April 2012</td><td>19 l/s</td><td>1,641.6 m^3/day</td><td>75,000 m^3/annum</td></tr>
<tr><td>1 September 2012 to 30 April 2013</td><td>19 l/s</td><td>1,641.6 m^3/day</td><td>75,000 m^3/annum</td></tr>
<tr><td>1 September 2013 to 30 April 2014 and every year thereafter</td><td>19 l/s</td><td>1,641.6 m^3/day</td><td>75,000 m^3/annum</td></tr>
</table></td></tr>
<tr><td colspan="3">Use</td></tr>
<tr><td>3</td><td>WP04</td><td>Type of irrigation: Spray irrigation
Number of hectares: 34 hectares
Use: crops and pasture for grazing stock excluding milking dairy cows
Plan No: “CRC020584 and CRC031315” (Attachment 1)</td></tr>
<tr><td>4</td><td>WP05</td><td></td></tr>
<tr><td></td><td></td><td>Water for irrigation shall only be used on or applied to land that is subject to a memorandum of encumbrance that complies with the requirements of the agreement entitled “Agreement in Relation to the Allocation of Water for Irrigation” between Meridian Energy Limited and the Mackenzie Irrigation Company Limited dated the 31st of October 2006. Clause 14.3</td></tr>
</table>

		The consent holder shall, six months prior to this consent being exercised, provide to the Canterbury Regional Council a certificate from the Consent Holder's solicitor certifying that the memorandum of encumbrance provided for in Condition (5) is registered on the computer registers for the land shown on Plan **A**, and any other evidence of registration as the Canterbury Regional Council may require (if any). *Clause 14.3*
5	WP06	
Mitigation		
6	WP07	*Name of waterbody:* Scrubby Creek *Map reference:* NZMS 260 H39:855-440 *Minimum flow:* 30 litres per second The minimum flow only pertains to the taking of water for irrigation rather than the diversion of water.
7	Non-standard	(a) No water shall be taken in terms of this permit as referred to in condition 1 until a report is provided to the Canterbury Regional Council, Attention RMA Compliance and Enforcement Manager demonstrating the existing fish exclusion measures have been designed and installed in accordance with Fish Screening: Good Practice Guidelines for Canterbury, NIWA Client Report 2007-092, October 2007. (Copy available on www.ecan.govt.nz). (b) The fish exclusion measures shall be maintained in accordance with Fish Screening: Good Practice Guidelines for Canterbury, NIWA Client Report 2007-092, October 2007.
8		The consent holder shall ensure water races used to convey water diverted in terms of this permit are well maintained to minimise losses.
Measuring & Metering		
9	ME02	
10	ME03	
11	ME04	
12	ME05	
13	ME06	*Waterway:* Scrubby Creek
	WP08	*Waterway:* Scrubby Creek *Map reference:* NZMS 260 H39:855-440 **To be used with ME03-05**
Administrative Conditions		
14	AD01	
15	AD02	*Number of working days:* 5 *Month 1*: March *Month 2:* July *Waterbody:* Scrubby Creek *Cross reference to Condition:* 6
16	AD04	Lapse date

CRC031315 – TO DISCHARGE WATER INTO CAMP STREAM

No.	Consent Code	Details
Scope		
1	DP01	*Waterbody from:* Scrubby Creek *Waterbody to:* Camp Creek *Map reference:* NZMS 260 H39:855-433 *Discharge rate:* 50 litres per second *Plan:* "CRC020584 and CRC031315" *Other:* The water shall by unused irrigation water and shall contain no contaminants.
Operation and Maintenance		
2	DP02	*Waterbody:* Camp Creek
3	DP03	
4	~~DP04~~	The metering of the discharge is considered to be inappropriate. This is because the discharge will be what is "left over" from the diversion (which is metered) minus any irrigation takes and race losses
Administrative Conditions		
5	AD03	Review
6	AD04	Lapse date

APPENDIX D – FARM MANAGEMENT PLAN

APPENDIX E – DEROGATION APPROVAL

meridian

11 September 2009

Gillian Ensor
Environment Canterbury
PO Box 345
Christchurch

Dear Gillian

Application by Totara Farming Company Ltd

1 We write to you to outline the basis of Meridian Energy Limited (*Meridian*) providing its derogation approval of the application numbered CRC020584 by Totara Farming Company Ltd. We refer to the letter to ECan from Chapman Tripp dated the 26th of June 2008 setting out Meridian's position on derogation approvals generally.

2 Meridian has read and considered the applications CRC020584 by Totara Peaks and provides derogation approval on the following basis:

2.1 Totara Farming Company Ltd shall only be entitled to divert water from Scrubby Creek (at location NZMS H39: 856-439) at a maximum rate of 50 litres per second and a maximum daily volume not exceeding 4,320 cubic metres per day;

2.2 Totara Farming Company Ltd shall only be entitled to take and use water from Scrubby Creek (at location NZMS H39: 856-439) at a maximum rate of 19 litres per second for the spray irrigation of 34 hectares identified in the application;

2.3 The maximum daily volume shall not exceed 1,641.6 cubic metres per day and the maximum annual volume shall not exceed 75,000 cubic metres per annum and this shall be allocated as an agricultural and horticultural activity upstream of Waitaki Dam but not upstream of the outlets of the glacial lakes under Rule 6, Table 5 of the Waitaki Catchment Water Allocation Regional Plan;

2.4 the annual volume provided for in Clause 2.3 shall be time tranched in accordance with the following table:

Table A – Maximum Rates & Volumes for CRC020584

Year	Maximum rate of abstraction (litres/second)	Maximum Daily Volume (cubic metres/day)	Maximum Annual Volume (cubic meters/year)
1 September 2009 to 30 April 2010	19 l/s	1,641.4 m^3/day	75,000 m^3/annum
1 September 2010 to 30 April 2011	19 l/s	1,641.4 m^3/day	75,000 m^3/annum
1 September 2011 to 30 April 2012	19 l/s	1,641.4 m^3/day	75,000 m^3/annum
1 September 2012 to 30 April 2013	19 l/s	1,641.4 m^3/day	75,000 m^3/annum
1 September 2013 to 30 April 2014 and every year thereafter	19 l/s	1,641.4 m^3/day	75,000 m^3/annum

3 Any amendment or modification to the above will require further written derogation approval from Meridian. On the same basis any subsequent variation, transfer or replacement application that is relevant to the volume or location of the take may also require further approval.

4 This letter is not an affected party approval to the consent application under section 94 of the Resource Management Act. Meridian may choose to submit in support or oppose the application on grounds which do not relate to the derogation of its rights, or not to submit at all.

5 This letter does however record (subject to the above) that Meridian will not oppose the granting of the Totara Farming Company Ltd application on the ground that it will reduce the quantity of water available under Meridian's existing consents.

6 Please advise if any basis for Meridian's approval outlined in paragraph 2 will not be met by the resource consent.

Yours sincerely

Mike Roan
Markets and Production Director