BEFORE THE COMMISSIONERS ON BEHALF OF THE OTAGO REGIONAL COUNCIL

Consent No. RM20.003, RM20.005 & RM20.007

BETWEEN	**ROCKBURN WINES LIMITED, WAKEFIELD ESTATES LIMITED, PISA HOLDINGS LIMITED, MARK II LIMITED, CHARD FARM TRUSTEES LIMITED, STUART DOUGLAS & PHILLIPPA MARY HAWKER, ALBANY HEIGHTS LIMITED AND SMALLBURN LIMITED**
	Applicants
AND	**OTAGO REGIONAL COUNCIL**
	Consent Authority

EVIDENCE OF WILLIAM JOHN NICOLSON

GALLAWAY COOK ALLAN
LAWYERS
DUNEDIN

Solicitor to contact: Bridget Irving
P O Box 143, Dunedin 9054
Ph: (03) 477 7312
Fax: (03) 477 5564
Email: bridget.irving@gallawaycookallan.co.nz

TABLE OF CONTENTS

ABBREVIATIONS

DOC	Department of Conservation
NPSFM	National Policy Statement for Freshwater Management 2014
NPSFM20	National Policy Statement for Freshwater Management 2020
NRMP	Kai Tahu ki Otago Natural Resource Management Plan
ORC	Otago Regional Council
PC7	Proposed Plan Change 7 (Water Permits) to the Regional Plan: Water for Otago
pRPS	Proposed Regional Policy Statement
PORPS	Partially Operative Regional Policy Statement
RMA	Resource Management Act 1991
Rockburn	Rockburn Wines Limited
RPS	Regional Policy Statement 1998
RPW	Regional Plan: Water for Otago

Smallburn	Smallburn Limited
Te Ao Marama Inc.	TAMI
95789 shareholders	Wakefield Estates Limited, Rockburn Wines Limited, Pisa Holdings Limited, Mark II Limited, Chard Farm Trustees Limited, Stuart Douglas & Phillippa May Hawker, Albany Heights Limited

Introduction

1. My full name is William John Nicolson and I am employed as an Environmental Scientist and Planner at Landpro Limited, a firm of consulting planners and surveyors. I hold the qualification of BAppSc (Hons, First Class) in Environmental Management from the University of Otago. I have been involved in environmental management and planning for the past 8 years, with the past 2 years at Landpro Ltd, providing consultancy services for a wide range of clients throughout New Zealand.

2. I am an associate member of the New Zealand Planning Institute, and an associate member of the Institute of Environmental Management and Assessment.

3. Over the past 8 years, and particularly in the past two with Landpro Ltd, I have undertaken a wide range of resource management-related work for a variety of clients, including preparing resource consent applications, preparing assessments of environmental effects (AEE's), stakeholder engagement and consent management services, with a particular focus on water resources.

4. I confirm that I have read and agree to comply with the Environment Court Code of Conduct for Expert Witnesses (Consolidated Practice Note 2014). This evidence is within my area of expertise, except where I state that I am relying on what I have been told by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

5. In this matter, I have been engaged by Rockburn Wines Limited, the shareholders of Deemed Permit 95789[1], and Smallburn Limited, hereafter collectively referred to as "the applicants", to provide independent planning and resource management advisory services, including preparation of this evidence.

[1] Thus referred to due to the large number of shareholders in Deemed Permit 95789 (RM20.005)

6. I am familiar with the proposals, was the author of the resource consent applications, and have visited the sites and surrounds.

7. In preparing this statement I have:
   - Reviewed the applications for consents and associated s92 responses
   - Reviewed the submissions from Aukaha, Te Ao Marama Inc. (TAMI) and Mark II Limited
   - Read the Section 42A reports
   - Read the technical reports and associated evidence being called by the applicants, including:
     - Mr Duffy; Rockburn water take, conveyance and use
     - Mr Perriam; Deemed Permit 95789 take and conveyance overview, Wakefield Estates Ltd water take and use
     - Mr Jones; Pisa Holdings Ltd water take and use
     - Mr Mason; Mark II Ltd water take and use
     - Mr Hay; Chard Farm Trustees Ltd water take and use
     - Mr Hawker; Hawker water take and use
     - Mr Thayer; Albany Heights Limited water take and use
     - Mr Morton; Smallburn Limited water take, conveyance and use
     - Dr Allibone; aquatic ecology
     - Ms Bright; hydrology
     - Mr Craw; investment analysis

8. I note that while each application (RM20.003, RM20.005, RM20.007) has been subject to a standalone Section 42A report, I have addressed general issues as they relate to all three applications, and have created titled subsections relating to specific applications where warranted.

Scope of Evidence

9. I have read the Section 42A reports and generally agree with the findings of the reports. I agree with the determination that the adverse effects of

the proposed activities will be no more than minor[2]. I also generally agree with the statutory planning analysis set out in the reports, with some exceptions - particularly in relation to PC7. I have provided some additional commentary on proposed changes to the recommended conditions to better reflect the matters I cover in my evidence below.

10. My evidence is structured as follows:
    - Summary of Proposal
    - Summary of Consultation and Submissions
    - Status of the Applications
    - Statutory Planning Assessment
    - Duration
    - Proposed Conditions of Consents

Summary of Proposal

11. A detailed overview of the applicants' proposals is included in Section 2 of each application, however I revisit the key details and potential points of contention below.

Rockburn Wines Limited (RM20.003)

12. Table 1 of Rockburn's application provides a summary of the existing deemed permit, water permit and discharge permit held by Rockburn. The water permit (98527.V1) and discharge permit (98655) currently authorise Rockburn to discharge Deemed Permit 95789 (which Rockburn holds shares in) race water to a tributary of the Park Burn, for subsequent downstream re-take at the start of Rockburn's branch race.

13. Rockburn has not utilised these two permits, instead preferring to take water on an as-needed basis from a shared dam serviced by 95789 water. For this reason, Rockburn is not seeking to replace these two permits.

14. Deemed permit 98526.V1 provides the primary source of water for Rockburn's vineyard, authorising the take and use of water from the Park

[2] Section 42A Report (RM20.003), Otago Regional Council, 17 August 2020 (Section 8.1). Section 42A Report (RM20.005), Otago Regional Council, 17 August 2020 (Section 8.1). Section 42A Report (RM20.007) Otago Regional Council, 18 August 2020 (Section 8.1)

Burn and an unnamed tributary of the Park Burn. Thus a combined total of 100,000 L/hour (28 L/s) applies across the two points of take.

15. The rate of take sought by the applicant is 28 L/s, which is well within what has been taken historically. The volumes of water sought are based on the Aqualinc efficient use calculations presented in Section 6.6 of the application, which are also well within the historic average maxima as shown in Table 1 below.

16. Note that the historic average maxima provided in the below table reflects the recently updated figures presented in Ms Bright's evidence. I adopt these as the applicant's proposed historic maxima, noting that those historic figures recommended by Ms Lindsay in the report do not align with those calculated by Ms Bright.

Table 1: Water take records and allocation sought for Rockburn Wines Ltd

	Current paper allocation	Historic abstraction maxima[3]	Primary allocation sought[4]
Rate (L/s)	28 L/s	123	28
Monthly (m^3/s)	73,584[5]	95,771	73,000
Annual (m^3/s)	883,008[6]	621,442	237,933

17. While I do not agree with the historic rates and volumes recommended in the Section 42A report, the monthly volume proposed by the applicant aligns with that recommended by ORC as the monthly volume sought in the application was capped at the current maximum consented volume in line with Policy 6.4.2 (defined primary allocation limits). The rate of take recommended by ORC also aligns with that sought by the applicant.

[3] As recorded in Ms Bright's evidence
[4] Includes frost fighting water
[5] Based on continuous taking at the max rate, as the current permit does not specify volumetric limits
[6] Based on continuous taking at the max rate throughout the year

18. There is, however, a small discrepancy in the annual volume recommended by ORC (229,602 m^3) and that sought by the applicant. As explained in Ms Bright's evidence, this appears to be due to ORC using Method 10A.4 of PC7 to calculate the recommended rates and volumes. I consider it inappropriate to use this method given that, under Section 88A, the rules of PC7 do not apply as the application was lodged prior to notification of PC7. Given that the rules do not apply to the application, there is no reason why the proposed methodology linked to those rules would apply. I also note that the Section 42A report refers to "Method 10.A.4 of the Regional Plan: Water for Otago", which is incorrect. Method 10.A.4 is part of Proposed Plan Change 7, not the operative Regional Plan.

19. The lower annual allocation recommended in the Section 42A report also reflects Ms Lindsay's opinion that applying the Aqualinc 100th percentile is not appropriate. I do not consider this to be a valid argument with regards to efficient vineyard irrigation, as I discuss in the next subsection of my evidence.

20. In light of the above, I consider that the annual volume sought by the applicant as shown in Table 1 above is appropriate.

<u>Shareholders of Deemed Permit 95789</u>

21. A detailed overview of the proposal by the shareholders of Deemed Permit 95789 is provided in Section 2 of the application and set out in the evidence of the respective shareholders.

22. The applicants seek to maintain the status quo in terms of operation of their water take, conveyance and use infrastructure. They seek a reduced instantaneous and volumetric allocation to align with RPW Policy 6.4.0A (efficient use). As the below table shows, instantaneous, monthly and annual allocation sought is below historic use (RPW Policy 6.4.2A).

23. Note that the historic average maxima provided in the below table reflect the recently updated figures presented in Ms Bright's evidence. I adopt these as the applicants' proposed historic maxima.

24. Also note that it has come to my attention that there is a crossover of frost fighting water sought for Rockburn's vines, with frost fighting water being sought for Rockburn under both RM20.003 and RM20.005. For this reason, the applicants have removed Rockburn's frost fighting water from the RM20.005 replacement water sought. At the same time, it has come to my attention via Albany Heights' evidence that under-tree sprinklers may be needed for frost fighting under the new 12.5 ha cherry block. Thus ~26 ha of Rockburn vines frost fighting water has been removed, while 12.5 ha of Albany Heights cherries frost fighting water has been added. The primary allocation and annual allocation sought reflect this change, with an overall reduction in monthly and annual volumes originally sought in the application. Note that a copy of the revised calculations is provided in Appendix B.

Table 2: Deemed Permit 95789 current allocation, historic use and allocation sought

	Current paper allocation	Historic abstraction maxima[7]	Primary allocation sought[8]
Rate (L/s)	166.7 L/s	169.5	120
Monthly (m^3/s)	416,750[9]	234,924	223,756
Annual (m^3/s)	5,256,000[10]	1,808,577	1,145,347

25. The historic monthly and annual figures proposed by Ms Bright on behalf of the applicants do not differ significantly from those recommended in the Section 42A report, therefore I raise no issue with the minor discrepancies.

26. I do not agree with the historic average maximum rate of take proposed by ORC (109 L/s), however given that Ms Lindsay considers that the 120

[7] As recorded in Ms Bright's evidence

[8] Includes frost fighting, stock drinking and, in the case of annual, race baseflow water

[9] As stated in Deemed Permit 95789 Condition 1(b)

[10] Based on continuous taking at the max rate throughout the year, as an annual limit is not specified on the permit

L/s sought by the applicant as replacement allocation is acceptable, I conclude that both parties are in agreement and there is no further issue.

27. Ms Lindsay's recommended monthly and annual allocation as proposed in the Section 42A report draft consent (241,858 m^3 and 981,940 m3, respectively) differs from that proposed by the applicants in Table 2 above. I note that the monthly volume now sought by the applicant (reflecting the reduction in frost fighting water sought as explained earlier) is less than that proposed by Ms Lindsay, so I have no further issue with monthly allocation.

28. Ms Lindsay's recommended combined annual volume is significantly lower than that proposed by the applicants. The proposed consent conditions adopt the baseflow, stock water and (revised) frost fighting water requirements proposed in the application, therefore the key issue of contention is with regards to irrigation water allocation. Ms Lindsay recommends the adoption of a 90th Aqualinc volume, on the basis that providing maximum Aqualinc irrigation volumes to all those who seek them in Otago would lock up water "that would rarely be used and that could not thereafter be allocated to other applicants."

29. While I believe this argument to be true with regards to pasture, where a certain amount of variability in water application can be tolerated for limited periods, I do not consider that this is an acceptable approach for high-value, extremely water-dependent[11] crops like cherries and grapes. While pastoral farmers have the option of reducing stocking rates or importing feed during dry periods, orchardists and viticulturalists are committed to maintaining the health and productivity of a fixed number of trees or vines every year, regardless of conditions. Further to this, commercial cherries require an exacting and on-demand quantity of water to ensure that they conform to the high-quality standards of export grade[12]. Similarly, high-end vineyards require ready access to water to ensure that their grapes, and the resultant wine produced, are of a quality equal to the markets they are targeting.

[11] Per Mr Jones' evidence, "trees suffering from water stress produce fruit with no commercial value."
[12] The evidence of Mr Jones notes that the highly lucrative Asian cherry market has very specific quality demands in regard to colour, size and texture of the fruit, and water plays a critical role in this equation.

30. These factors, in addition to the already highly efficient use of water on these vineyards and orchards (predominantly drip and micro-spray), means that the adoption of the maximum volume recommended by Aqualinc is still an efficient (and essential) use of the water resource.

31. With further regards to water use areas, I have provided an updated map in Appendix C which shows the development in irrigation areas serviced by 95789 water since the application was lodged. The key changes are:

    i. Albany Heights' proposed cherry block has now been planted and will be irrigated starting this season.

    ii. Albany Height's proposed 12,500 m^3 storage pond to the west of the existing shared pond has now been constructed.

    iii. One of Pisa Holdings' proposed cherry blocks has now been planted and will be irrigated this season.

    iv. Chard Farm now propose to plant an additional ~1 ha of vines at the northern corner of their property. This will be planted next year.

32. Note that no additional allocation is being sought for the further 1 ha of vines proposed by Chard Farm that was not part of the application.

<u>Smallburn Limited (RM20.007)</u>

33. A detailed overview of Smallburn's proposal to replace allocation from Breakneck Creek, the Amisfield Burn and the Park Burn is provided in Section 2 of the application. The proposal also includes re-takes from a tributary of the Park Burn and Five Mile Creek, as summarised in Table 1 of the application and detailed in Section 2 of the application.

34. Smallburn seeks to maintain the status quo in terms of operation of water infrastructure, and propose an instantaneous, monthly, and annual primary allocation that is significantly lower than the historic average maxima as per Table 3 below.

35. Note that the historic average maxima provided in the below table reflect the recently updated figures presented in Ms Bright's evidence. I adopt these as the applicants' proposed historic maxima.

Table 3: Smallburn Ltd current allocation, historic use and allocation sought

Water source (permits)	Current paper allocation	Recorded historic abstraction maxima[13]	Aqualinc volumes[14]	Primary rate sought	Volumes originally sought[15]	ORC recommended rates & volumes
Breakneck Creek (96320.V1)	55.6 L/s 146,117 m^3/month 1,753,402 m^3/year[16]	107 L/s 199,566 m^3 (monthly) 1,261,085 m^3 (annual)	544,324 m^3 monthly 2,618,454 m^3 annually	97.3 L/s	492,127 m^3/month 2,319,363 m^3/year	97.3 L/s (Breakneck + Amisfield) 92.3 L/s (Park Burn) 546,184 m^3/month 2,640,354 m^3/year
Amisfield Burn (96321.V1)	41.7 L/s 109,588 m^3/month 1,315,051 m^3/year					
Park Burn (RM15.007.01 & 94394)	249.8 L/s 645,058 m^3/month 3,693,518 m^3/year	241.5 L/s 419,388 m^3 (monthly) 1,879,199 m^3 (annual)		120 L/s		
Combined total	347.1 L/s 900,763 m^3/month 6,761,971 m^3/year	348.5 L/s 618,954 m^3 (monthly) 3,140,283 m^3 (annual)		217.3 L/s		

36. As can be seen, the applicant has sought significantly less than the historic maxima, the Aqualinc monthly and annual irrigation requirements, and Ms Lindsay's recommendations. This reflects the historic data that was available at the time of compiling the application, forcing the applicant to cap their proposed allocation based on the historic maxima, rather than those volumes that would be required to efficiently irrigate the applicant's command area.

37. More recent analysis of the abstraction data by Ms Bright has shown that considerably more water was taken by the applicant in the 2018/19 and 2019/20 irrigation seasons than those of the previous 4 seasons (noting that 1 season was not recorded due to equipment malfunction). This may

[13] As recorded in Ms Bright's evidence

[14] Per Appendix D of the application and adopting the 90th percentile annual recommended by ORC

[15] Includes stock drinking water (1,825 m^3 monthly and 21,900 m^3 annually)

[16] Monthly and annual totals are not specified in permits 96320, 96321 & 94394 and have been calculated using the instantaneous total.

correlate to the comparatively wet summer of 2018/19 and the installation of the applicant's new 20,000 m^3 dam at the start of the 2019/20 season.

38. Based on this new data, the applicant accepts and adopts Ms Lindsay's recommended monthly and annual volumes, as they reflect efficient use of water and incorporate a 90th percentile approach to seasonal water, which I agree with in relation to pasture irrigation. I note that granting less water than is needed is also inefficient.

39. I do not consider that this change in the volume sought (additional 54,057 m^3 monthly and 320,991 m^3 annually) poses any additional effects on the environment that have not already been considered in the application, particularly given the applicant has historically taken far more than this and no increase in the rate of take sought is proposed.

40. I disagree with the historic average maximum rate of take recommended in the Section 42A report based on Ms Bright's evidence. In the report, Ms Lindsay states that "water use has increased in the last data period Jan 2019 to Jan 2020…and this increased water take is not considered representative of the last five years of data." I can only assume that this is a misinterpretation of RPW Policy 6.4.2A, which requires Council to grant "no more water than has been taken under the existing consent in **at least** the preceding five years". I have purposely highlighted "at least", as the Section 42A report appears to have recommended on the basis that historic use analysis can apply to any 5 years, rather than a *minimum* of 5 years. There is thus no basis for excluding certain irrigation seasons if they are judged to be different to the preceding seasons, and based on Ms Bright's evidence this is also a departure from accepted methodology for calculating the historic average maximum.

41. I therefore consider the rates sought in the application to be consistent with RPW Policies 6.4.0A and 6.4.2A.

42. Based on the above, I consider that the rate of retake recommended in Draft Consent No. RM20.007.02 for Five Mile Creek should be 217.3 L/s. I accept the rate of retake recommended for the unnamed tributary of the Park Burn.

43. With regards to the irrigation area breakdown, I have noticed inconsistencies between the calculations presented in Appendix D of the application and the summary of irrigation areas provided in Section 2.2 of the application. For clarity, I refer to Figure 10 of the application, which provides a detailed breakdown of irrigation areas in map format. Based on Figure 10, existing irrigation areas at the time the application was prepared totalled 234.3 ha, while proposed irrigation areas totalled 85.4 ha, together comprising 319.7 ha. The Aqualinc calculations presented in Appendix D of the application assumed an existing area of 284.4 ha and a proposed area of 36.1 ha, totalling 320.5. This discrepancy may have been due to an update in the irrigation mapping not being reflected in the Aqualinc calcs, and I confirm that the irrigation areas breakdown provided in Figure 10 should govern at the time the application was lodged. Given the negligible difference between the two total areas (319.7 vs 320.5 ha), I consider that there is no need to re-calculate the volumes sought.

44. With further regards to water use areas, I have provided an updated map in Appendix C which shows the development in irrigation areas serviced by Breakneck, Amisfield and Park Burn water since the application was lodged. The 3 changes are:

    i. Pivot 5 was commissioned in December 2019, however this was not communicated prior to the application lodgement in January 2020. Pivot 5 now shows as existing irrigation.

    ii. Some of the proposed K-line area has been planted in grapes (4 ha), with the 2020/2021 irrigation season being the first season for these grapes.

    iii. Approximately 2.3 ha of fixed sprinkler irrigation has been added to service a small area of pasture between pivots 4 and 5.

45. No additional allocation has been sought to service the additional irrigation area (~2.3 ha), forcing the applicant to use water even more efficiently to significantly increase the productive capacity of the land. I consider that the small land use area change from pasture to vineyard does not represent a significant departure from the overall water

requirements of the applicant, therefore I have not deemed it appropriate to update the Aqualinc calculations.

Priority system overview

46. The water take, conveyance and use arrangements within the Amisfield and Park Burn catchments are relatively complex. The applicants' irrigation systems have been configured in light of this infrastructure and they have been operating it effectively. Therefore, all three applicants have agreed to continue operating in accordance with the current priority system upon expiry of their deemed permits. As shown in the below figure, each applicant essentially has top priority on at least 1 watercourse, meaning during times of low flow each party has access to some water.

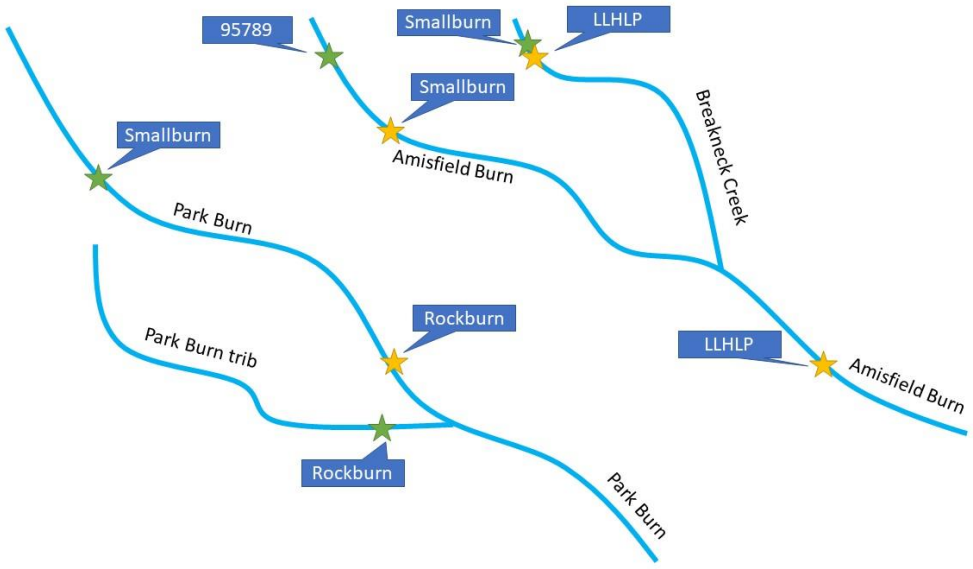


Figure 1: Current priorities in the Amisfield Burn & Park Burn catchments (note, green stars denote top priority)

47. While Lowburn Land Holdings Limited Partnership (LLHLP – RM20.020) do not have priority on any of the creeks, current conditions on LLHLP's Breakneck Creek deemed permit require LLHLP and Smallburn Ltd to cooperate together in sharing the water. An internal agreement between these two parties has been made to continue this sharing relationship

into the future, meaning LLHLP should still have access to water at their active take point on the lower Amisfield Burn during times of low flow.

Duration

48. The duration originally proposed by all three applicants was 35 years, based on the suite of justifications provided in Section 8 of each application. For reasons explained later in my evidence, a 25-year term may be more appropriate.

Summary of Consultation and Submissions

49. No consultation with affected parties was undertaken prior to limited notifying the applications, largely on account of the applicant's desire to proceed as quickly as possible through the resource consent process and due to significant delays I and my colleagues at Landpro had been experiencing with consultation on other deemed permit applications.

50. Following limited notification, ORC received submissions from the following parties for each application:

    i. RM20.003:

        - Mark II Limited
        - Aukaha

    ii. RM20.005:

        - Aukaha
        - LLHLP

    iii. RM20.007:

        - TAMI
        - Aukaha
        - Mark II Ltd (late submission)

51. During the submissions period following limited notification of RM20.007, discussions took place between the applicant and DOC. As part of the consultation, both parties agreed to a condition of consent requiring the maintenance of a visual residual flow immediately downstream of the waterfall below the Amisfield burn intake. DOC issued an advisory letter stating that, pending inclusion of the proposed residual flow condition on the Amisfield Burn replacement consent, it would consider withholding submission on the application.

52. DOC's advisory letter further recommended due consideration of the Park Burn tributary and Five Mile Creek retakes, and potential provision of a residual flow downstream of the Breakneck Creek take point.

53. I accept the recommended condition relating to the connected residual flow in draft Consent No. 20.007.01 (Condition 5(b)) and therefore consider that DOC's request with regards to this is fulfilled. I also accept Condition 5(a) of the draft consent insofar as it concerns Breakneck Creek (no more than 50% of Breakneck Creek water shall be taken at any one time), particularly in light of Smallburn's commitment to continue sharing Breakneck Creek water with LLHLP.

54. I do not accept the recommended condition (5(a)) of RM20.007.01 requiring a 50% residual flow below Smallburn's Amisfield intake, for reasons presented later in my evidence. At no point was this condition requested by DOC. I consider that their residual flow concerns in relation to the Amisfield Burn have been satisfied by the proposed connective residual flow.

55. Finally, Ms Lindsay has addressed the issues of retake raised by DOC in recommended draft Consent No. RM20.007.02. The conditions of consent require that only water introduced by the applicant to the Park Burn Tributary and Five Mile Creek is retaken, and recommend that a flow meter be installed immediately down-race from the Five Mile Creek retake to ensure that only allocated water is retaken. While I recommend amending this condition to allow Smallburn the option of maintaining/installing a flow-rated control structure, rather than just a

water meter, I agree with the condition in principle and consider that the concerns of DOC as they relate to the retakes have been addressed.

56. In the following paragraphs, I consider the submissions made by the various parties listed above.

Aukaha

57. In considering the issues raised by Aukaha, I note that there is nothing in any of their submissions relating directly to each application or the subject watercourses specifically. I have observed this generalist approach to submissions on all of the deemed permit applications that have been notified to Aukaha, as have other Landpro Ltd planners. It has been my experience that it is not possible to address their concerns in a manner that is acceptable to an applicant. I note that Aukaha's submission on RM20.007 makes reference to Omeo Creek for no known reason.

58. Aukaha sought the following decision in their submissions on the applications:

i. That the term of consent be no longer than 6 years.

ii. (RM20.003, RM20.007) A minimum flow of 90% of MALF and an allocation limit of, whichever is greater of:

- 30% of MALF, or
- The total allocation from the catchment on the date that the NES comes into force less any resource consents surrendered, lapsed, cancelled or not replaced.

iii. (RM20.005) That at least 50% of the flow in the waterway is left in the waterway.

iv. Retain existing requirements for water meter(s) and ensure results continue to be recorded and reported via telemetry.

59. With regards to the proposed 6-year consent term, Aukaha's key concern is that granting consents with longer terms would "lock in"

unsustainable water use by preventing ORC from implementing changes in the new RPS and LWRP on those consents.

60. However, should the future LWRP set minimum flows for the catchments subject to these consents, ORC has the ability to review the consents, and indeed this is provided for in the review conditions presented in the draft consents of each of the Section 42A reports. I note that I am in agreement with these review conditions. As an example, Condition 11(e)(5) of Draft Water Permit RM20.005.01 states that the Consent Authority may review "surface water allocation limits and minimum flows set out in any future regional plan, including any review of the Regional Plan: Water for Otago".

61. Being able to implement any newly developed minimum flow and allocation regime will ensure that, as noted in Section 4.5 of the RPW, "*the outcomes sought by Kai Tahu are the continued health and wellbeing of the water resources of the region, and cultural usage of these resources*"[17].

62. With regards to leaving 50% of the natural flow in the waterway, there is no specific reasoning provided in Aukaha's submission explaining why this decision is sought. The same applies to the allocation limits sought for RM20.003 and RM20.007, where the greater of 30% of MALF or the total allocation on the date the National Environmental Standard for Ecological Flows and Water Levels 2008 (NESEFWL) comes into force. Furthermore, given that the NESEFWL has not yet come into force, it is not relevant to the present assessment.

63. For all of the watercourses (Breakneck Creek, Amisfield Burn, Park Burn), the submission does not identify what Kai Tahu values exist and need to be considered. Therefore, it is very difficult to assess whether their requested residual flow is appropriate and/or necessary.

64. Given the hydrological evidence presented in the application and expanded upon in Ms Bright's evidence, neither a 50% residual flow nor an allocation limit of 30% of MALF would ensure surface flow

[17] Otago Regional Water Plan, Section 4.5, Page 4-3.

connectivity to Lake Dunstan during times of low or even mean flow for any of the watercourses.

65. Despite the limited hydrological and ecological values of the subject watercourses, I recognise that it is important to maintain their mauri, which I understand equivalates to their life force or essence, insofar as it is practicable to do so. I consider that that this will be achieved via the proposed connective residual flows for the Amisfield Burn and Park Burn, the 50:50 flow sharing in Breakneck Creek, and conditions of consent requiring that no more water is retaken from the Park Burn and Five Mile Creek than was delivered to those watercourses for that purpose (in the case of RM20.007). Furthermore, the reduction in allocation rates and volumes across the three applications will ensure that more water remains in the watercourses, thereby allowing them to more closely mimic their natural flow regime.

66. In the case of Aukaha's water metering requirement, all of the subject takes are metered in line with national standards and will continue to be operated and reported in the same manner upon exercise of the replacement consents.

67. I consider that Aukaha's concerns as raised in their submissions, however general, have been suitably addressed by the proposals.

<u>TAMI</u>

68. TAMI's submission on RM20.007 was, in my opinion, very similar to that of Aukaha's – no specific references to the application were made and the decision sought had a similar theme:

    i. Maximum consent term of 6 years

    ii. Fish screens are consistent with NIWA Fish Screening Guidelines

    iii. Flows left in the waterway should be consistent with national direction

    iv. That the water take is metered in accordance with national direction.

69. My above response to Aukaha's proposed 6 year duration maximum also applies to TAMI's push for only 6 years consent duration.

70. With regards to fish screening, Ms Lindsay has recommended fish screens on all dam offtakes on the basis of Mr Campbell's evidence. I accept this recommendation in relation to Smallburn's application, however I consider that there is no need for a fish screen on any dams currently serviced by 95789 water as the take point is in a reach of the Amisfield Burn that does not contain fish (see Dr Allibone's evidence) and so there is unlikely to be any fish in the down-race dams.

71. Based on Dr Allibone's evidence, I also see no need to impose a fish screening condition on Rockburn's dam as this is typically dewatered for maintenance each year outside the irrigation season, which largely coincides with the trout spawning season. As such, I consider that TAMI's fish screening requirements have been satisfied to the extent practicable.

72. With respect to TAMI's requirement that flows left in the waterway be consistent with national direction, there is no indication which of the waterways TAMI is referring to (Breakneck Creek, Amisfield Burn, Park Burn or Five Mile Creek) and no further justification for this requirement. It is not clear what 'national direction' is being referred to.

73. Given the intermittent nature (per Ms Bright's evidence) and relatively limited fish values (per Mr Campbell's and Dr Allibone's evidence) of all the subject watercourses, I consider that the reductions in allocation (thereby leaving more water in the creeks), the 50% residual flow requirement on Breakneck Creek, and the connective residual flow requirements on the Amisfield Burn, Park Burn and Park Burn tributary suitably address TAMI's residual flow requirements.

74. As discussed earlier, all applicants will comply with national requirements for metering of their takes.

<u>Mark II Limited</u>

75. Mark II Limited have withdrawn their submission and any right to be heard with regards to RM20.007.

76. Mark II's submission was in support of Rockburn's application and sought to provide clarification on certain matters relating to water use in the Park Burn that Mark II deemed important. Given that the submission was in support of Rockburn's proposal, there is no further action required.

LLHLP

77. LLHLP made a neutral submission on RM20.005, requesting that due consideration be given to LLHLP's downstream water take needs (under Deemed Permit 97232). LLHLP subsequently withdrew their submission after internal discussions with the applicants.

Status of Application

78. Section 6 of the three Section 42A reports discuss the status of the applications. I agree with the activity status breakdowns and the overall activity status for each application is *restricted discretionary.* , given that the applications were lodged with Council well in advance of notification of PC7.

79. A full analysis of the activity status of each application is provided in Section 4 of each respective AEE.

Statutory Planning Assessment

80. The assessment in each application against the relevant objectives and policies of the following documents remains valid and I still stand by these assessments:
    - National Policy Statement for Freshwater Management 2014 (amended 2017) (NPSFM)
    - Resource Management (Management and Reporting of Water Takes) Regulations 2010 (RMR)
    - Regional Policy Statement for Otago 1998 (RPS)

- Partially Operative Regional Policy Statement for Otago 2019 (PORPS)
- Proposed Regional Policy Statement for Otago 2015 (pRPS)
- Regional Plan: Water for Otago (RPW)
- Kai Tahu ki Otago Natural Resource Management Plan (NRMP)

81. Below I give regard to the following statutory documents, either because those assessed in the applications merit further consideration, or because they were not a valid consideration at the time of writing the applications (but are now):
    - Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NESF)
    - National Policy Statement for Freshwater Management 2020 (NPSFM20)
    - Resource Management (Management and Reporting of Water Takes) Amendment Regulations 2020 (RMR20)
    - Proposed Plan Change 7 (Water Permits) to the Regional Plan: Water for Otago (PC7)
    - Kai Tahu ki Otago Natural Resource Management Plan (NRMP)

<u>Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NESF)</u>

82. The NESF, which comes into force on September 3rd, 2020, must now be considered given that it falls prior to the upcoming hearing. It is my preliminary assessment that each of the three proposals would not trigger any permitted thresholds under the NESF.

<u>National Policy Statement for Freshwater Management 2020 (NPSFM20)</u>

83. Given that the NPSFM20 comes into force prior to the upcoming hearing (September 3rd), the objective and policies therein have bearing on the applications. As such, I have provided an assessment of the applications against the NPSFM20 below.

84. Objective (1)

The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:

(a) first, the health and well-being of water bodies and freshwater ecosystems

(b) second, the health needs of people (such as drinking water)

(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

85. My understanding of the new NPSFM is that is places the concept of Te Mana o te Wai at the forefront. This is not a new concept, and it is one that is interwoven through the 2017 NPSFM. Therefore, I consider that the applications gave due consideration of this paradigm throughout the assessment of effects and proposed mitigation.

86. Given the importance of this concept, however, I consider it warranted to revisit Te Mana o te Wai and explore how it shapes the objectives and policies of the NPSFM20 – and ultimately water management at the sub-catchment level, as with the subject applications.

87. As explained in Clause 1.3 of the NPSFM20, "Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment." Thus Objective (1) requires that the health and wellbeing of any water body is made first priority. Thus by protecting the mauri of a water body, providing for the health, social, economic and cultural needs of people becomes an easier task.

88. As a result, considerable time and money have been invested in these applications to ensure that the health of the subject waterways could better be understood, which has enabled the applicants to make informed decisions about how best to protect or even enhance the intrinsic state of these waterways while maintaining their own – and that of the wider community – social, economic, and cultural wellbeing.

89. With regards to the health and wellbeing of Breakneck Creek, the Amisfield Burn, the Park Burn and Five Mile Creek, Ms Bright's

investigations and subsequent evidence have demonstrated that these creeks are naturally ephemeral. From a non-expert standpoint, it stands to reason that a watercourse is not inherently “unhealthy” if it does not naturally have full connectivity with a receiving water body year-round.

90. While I recognise that the abstractions may shorten the wetted reach of Breakneck Creek, the Amisfield Burn and the Park Burn and its tributary, with the exception of during relatively high flows the abstractions are unlikely to significantly reduce the ability of these creeks to maintain a surface connection with Lake Dunstan. Any residual flow imposed is unlikely to change this.

91. Rather, the residual flow conditions recommended by Ms Lindsay and accepted by the applicant (with the exception of the 50% residuals in the Amisfield Burn) will help to support the existing fish populations in the creek and allow for invertebrate passage past the intakes. This, combined with the proposed reductions in allocation and proposed residual past the Smallburn Park Burn tributary retake, should help to improve the health of these watercourses.

92. Ensuring that abstraction is within the means of the subject watercourses is also in the interests of the applicants, as water is such a critical aspect of the agricultural, horticultural and viticultural land uses within the command areas. Furthermore, ensuring that sufficient water is left below an intake – particularly those in the upper reaches of the catchments – means enough water remains for downstream users, thereby maintaining social and economic harmony between the applicants.

93. In light of the above, I consider that the applications are consistent with Objective (1).

94. The NPSFM20 policies most relevant to the applications are Policy 1, Policy 2, Policies 7-11, and Policy 15.

Policy 1

Freshwater is managed in a way that gives effect to Te Mana o te Wai.

95. In line with Paragraphs 85 to 93, above, I consider that the application gives effect to Te Mana o te Wai.

Policy 2

Tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for.

96. This policy appears to have more relevance to consent authorities than it does for applicants, however consideration of identified Māori freshwater values has been provided throughout Section 7 of each application.

Policy 7

The loss of river extent and values is avoided to the extent practicable.

97. It is acknowledged that the proposed abstractions from Breakneck Creek, the Amisfield Burn, the Park Burn and a tributary of the Park Burn will reduce the wetted reaches of each watercourse to a certain extent. However, the hydrological evidence provided by Ms Bright suggests that the loss in instream values due to this reach shortening effect is not significant. It is also worth noting once more that the Amisfield Burn and Park Burn will typically naturally lose their connection with Lake Dunstan for certain periods of the year regardless of the applicants' activities[18]. I consider that the applicants have sought to avoid river loss to the extent practicable by significantly reducing the instantaneous allocation sought from the Amisfield Burn and Park Burn (in the case of the 95789 shareholders and Smallburn), and in committing to avoid abstractions above the 28 L/s sought by Rockburn. I also note that the overall reduction in allocation volumes to align with efficient use calculations will to result in more water being left in-stream.

Policy 8

The significant values of outstanding water bodies are protected

[18] Per Ms Bright's evidence

98. As noted in the applications, the Amisfield Burn is listed in Schedule 1A of the RPW as significant habitat for koaro. However, on the basis of Mr Campbell's evidence and Dr Allibone's report appended to the applications, there appears to be no value in making specific arrangements (such as residual flows) for koaro in the Amisfield Burn as part of RM20.005 and RM20.007. I do not foresee any aspects of the proposals that would impact the Amisfield Burn's Schedule 1A status as "weed free".

99. Neither Breakneck Creek, the Park Burn nor Five Mile Creek are listed in Schedule 1A of the RPW.

Policy 9

The habitats of indigenous freshwater species are protected

100. In line with my assessment of Policy 8, above, the potential koaro habitat of the Amisfield Burn is not significant and there appears to be no value in specifically providing for this species. The status quo is considered sufficient for protection of upland bully in the Amisfield Burn[19], however at the same time I do not expect that the reductions in allocation or the proposed residual flows will negatively impact this species.

Policy 10

The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.

101. Based on historic records and Dr Allibone's April 2019 fish survey, the brown trout present in Breakneck Creek, the Amisfield Burn and the Park Burn are self-supporting, stunted populations with no sports fishery value. Reduction in allocation across the three applications and proposed residual flows at the top of the catchments will ensure that existing trout habitat is protected and probably enhanced in these watercourses.

Policy 11

[19] Per Dr Allibone's April 2019 report appended to the applications & Mr Campbell's evidence

Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.

102. Consideration of allocation in respect to the applications has been provided to a sufficient extent in the application and in my evidence herein. I note that there has been a further reduction in allocation sought for RM20.005. I consider the proposals to be fully compliant with this policy.

Policy 15

Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.

103. Enabling the applicants to continue farming, growing and producing by providing the water they need to efficiently irrigate their land, along with providing critical stock water and frost fighting water, will provide for not only the economic wellbeing of the applicants themselves, but also social and economic wellbeing of the wider community. I am compelled to reiterate that the land uses subject to these applications are all highly productive enterprises[20], creating export-quality products. These activities create jobs[21] in the local community, support a thriving local economy, and reinforce the identity of Central Otago as a world-class producer of wines, cherries, and agricultural products.

104. As a result, I am comfortable stating that the proposals enable communities to provide for their social and economic wellbeing. I have addressed cultural aspects in earlier sections of my evidence, and do not consider that the applications present a barrier to cultural wellbeing. Therefore, the proposals give effect to Policy 15.

105. Overall, I consider that the applications achieve the objective and align with the policies of the NPSFM20.

[20] For example, the evidence of Mr Jones indicates that when at peak production, approx. 44 ha of Pisa Holdings land irrigated via Amisfield Burn water will generate up to $20 million annually, with their unconventional two-dimensional growing system producing twice the yields of conventional cherry plantings.
[21] Per the evidence of Mr Jones, Pisa Holdings alone employ 12 full-time staff and employ an additional 200 seasonal staff during picking. Mr Jones is also currently working with the tourism sector investigating opportunities to employ staff who have lost work due to COVID-19.

Resource Management (Management and Reporting of Water Takes) Amendment Regulations 2020 (RMR20)

106. RMR20 comes into effect on September 3rd 2020. To my knowledge, all of the applicants' water metering and reporting is in line with the amendments listed in RMR20.

Regional Policy Statement (RPS), Proposed Regional Policy Statement (pRPS) & Partially Operative Regional Policy Statement (PORPS)

107. All of these policy statements have been given due consideration in Section 7 of the applications. I also agree with Ms Lindsay's assessments of these documents in relation to the applications.

Regional Plan: Water for Otago

108. I agree with Ms Lindsay's assessment of the activity against the policies of the RPW.

109. While I note that I am not a cultural expert, I consider that sufficient consideration of cultural values and effects is provided in the applications in relation to the regional planning framework, particularly Sections 7.2.3, 7.2.4, and 7.2.5. Further consideration of iwi values and effects in other parts of my evidence builds on this initial cultural effects assessment.

Proposed Plan Change 7

110. PC7 was notified on March 18th 2020, and introduces objectives, policies and rules in relation to deemed permit and surface water permit applications. PC7 is intended by ORC to provide an interim planning framework for the assessment of applications to renew deemed permits expiring in 2021 and any other water permits expiring prior to 31 December 2025, when a new Regional Land and Water Plan is expected to be operative. PC7 also seeks to impose a requirement for short-duration consents for all new water permits.

111. PC7 provisions take immediate legal effect, however as these applications were lodged well in advance of PC7 notification, they retain their restricted discretionary activity status under the operative RPW.

112. Policy 10A.2.1 directs Council to avoid granting replacement consents except where certain provisions are met. As noted in each of the Section 42A reports, all of the provisions of this policy are met by the application except (b), which requires that there is no increase in the area under irrigation. As discussed in the large number of submissions prepared by Landpro on behalf of our deemed permit and water permit clients, the justification behind this condition in particular is not apparent and there is a disconnect between what PC7 is aimed at achieving (better/more sustainable environmental outcomes in the interim) and what may occur as a result of this condition (barriers to sustainable development, prevention of water being used more efficiently over larger land areas without necessarily requiring more water).

113. In the case of RM20.005 and RM20.007, major conversion of undeveloped land to cherries or pasture has already occurred, with RM20.005 shareholders (Albany Heights and Pisa Holdings) establishing a further ~18 ha of additional cherry orchards, and Smallburn have commissioned a new 36 ha pivot, 4 ha of vineyard, and ~2 ha of fixed sprinkler. Were Policy 10A.2.1 to be given undue weighting, it would essentially leave those areas “high and dry”, with insufficient water allocated to provide for the efficient irrigation of these areas.

114. This would seriously undermine the productive capacity of the subject land (thereby misaligning with Objective 5.3 of the PORPS), and place the considerable investments made in these developments in jeopardy. I note that despite these increases in irrigable area, the applicants have proposed a reduction in instantaneous, monthly and annual allocation, therefore there is little to be gained from restricting replacement water to “existing” areas and much to be lost from a social, economic and productive land capacity perspective.

115. As discussed in the RM20.007 Section 42A report, PC7 Policy 10A.2.2 applies to the new retake permit (RM20.007.02). I agree with Ms Lindsay's recommendation that little weighting should be given this policy, and hence a longer term to align Consent No. RM20.007.02 with RM20.007.01. There are no other areas of PC7 that apply to new water permit applications.

116. Policy 10A.2.3 of PC7 provides direction on consent duration. For reasons that I will discuss later in this brief of evidence, I do not agree with Ms Lindsay's recommendation regarding consent terms in relation to this policy.

117. Overall, I see no real justification for giving any degree of weighting to the policies of PC7, given that the applications have given full consideration of and effect to the 2017 and 2020 NPSFM. I understand that one of the key reasons for withholding irrigation area development and enforcing shorter consent terms was due to concerns that the regional plan does not give effect to national direction in terms of freshwater management. However, the effects of a proposals were considered against the NPSFM and a decision on these proposals can be made while giving due consideration of the NPSFM, meaning there would be no departure from national direction and no reason to give weighting to PC7 policies. I note that where there are any inconsistencies or items on the subject consents that need to be amended in later years, these can be addressed via the recommended review conditions.

<u>Kai Tahu ki Otago Natural Resource Management Plan (NRMP)</u>

118. While I consider that sufficient consideration of the NRMP was provided in each application, the 35-year consent terms sought by all applicants was not consistent with this plan. For reasons put forward in their evidence, the applicants still consider a 35-year term to be appropriate. However, in order to bring the proposals fully in line with the NRMP, the Commissioner may be justified in reducing the consent terms sought for all three applications to 25 years. Further discussion of duration is provided below.

Duration

119. Ms Lindsay has recommended consent terms for all consents (replacement and new) of 15 years. She has listed a range of matters for consideration when determining consent term in relation to RPW Policy 6.4.19. Below, I provide a rough summary (in italics) of Ms Lindsay's consideration of the applications in relation to Policy 6.4.19, along with my own critique based on my knowledge of the schemes.

    i. *The proposed purpose of use (abstraction/irrigation) is enduring*. The Mt Pisa and Lowburn areas have been successfully farmed using Park Burn and Amisfield Burn water for a century[22], and ongoing investment in infrastructure upgrades and expansion shows that agriculture will remain a key feature in this area for decades to come. The vineyards and cherry orchards subject to these applications have been planted on the basis of long-term operation. Albany Heights' new cherry block, for example, has an intended minimum life of 35 years, and Mr Thayer notes in his evidence that "there is no reason that this site cannot remain productive for 100+ years." All of these long-term models are dependent on secure water supply[23]. The purpose of use is most definitely enduring.

    ii. *There are no minimum flows in the subject catchments*. I agree with this, noting that these can be (and have been) assigned as conditions of consent via the recommended review conditions.

    iii. *Climatic variability is certain to occur*. As discussed in Section 8 of the applications, more extreme climatic fluctuations are expected, meaning water security is now more important than ever to ensure these critical land uses subsist in the future.

    iv. *Potential adverse effects can be addressed through robust review conditions, but that there are limitations to Council's ability to impose allocation changes via this mechanism*. The review

[22] Per Mr Morton's evidence.
[23] As considered in Mr Craw's evidence.

conditions recommended by Ms Lindsay and accepted by the applicants are robust, and I can see no reason why there would be any limitations to Council's ability to revise allocation on these consents in response to a new regional land and water plan or new scientific evidence. These review conditions will also enable Council to review and amend (as needed) allocation in a collective, logical manner (i.e. on a catchment-wide basis), rather than an ad-hoc basis upon expiry of consents. I also understand that Section 38 of the Resource Management Amendment Act 2020 has now resolved any uncertainty around Council's review powers with respect to Section 128 of the RMA. Based on these factors, I consider that any potential adverse effects arising from the activities can be addressed via review conditions.

v. *Consent review conditions can provide for adaptive management*. I am in agreement with this.

vi. *Considerable investment has been made by all applicants in water infrastructure and further significant investment will be needed for maintenance and water take, conveyance and use efficiency upgrades*. I am in agreement with this. As per the evidence of the applicants, investment in water infrastructure across the three applications is in the order of millions, and considerable sums are planned to be invested to continue improving water conveyance and use efficiency and enable long-term, sustainable land use.

vii. *The majority of the subject command areas are composed of efficient irrigation practices*[24]*, however there will continue to be overall efficiency upgrades to the take and conveyance systems in line with industry best practice*. Ms Lindsay's summary in this regard is acceptable.

120. Based on the above summary of Ms Lindsay's Policy 6.4.19 assessment, the impression given is that a longer consent term is

[24] For example, in his evidence, Mr Jones states that Pisa Holdings' cherry trees are irrigated using advanced irrigation technology that monitors soil moisture levels and daily evapotranspiration rates to ensure only the amount of water needed is applied to each tree, avoiding runoff and wastage.

merited, however that is not reflected in the recommended 15 years. Indeed, as noted by Ms Lindsay, “while some weight can be given to PPC7, it is appropriate to give weight to Policy 6.4.19 of the RPW.” I am of the opinion that 15 years does not give sufficient weight to Policy 6.4.19.

121. The RM20.007 Section 42A report goes on to say that the recommended duration will provide security to the applicants, however the evidence of Mr Jones, Mr Thayer and Mr Perriam in particular indicates that the recommended duration of 15 years does not, in fact, provide enough security to the applicants. Mr Thayer, for example, states in his evidence that a term of 15 years would be unacceptable as this is less than half the productive life span of a cherry tree. Mr Thayer further notes that Albany Heights’ new cherry block will take 6 years to reach full production and another 15 years to provide a return on investment. Mr Jones also indicates that seasonal/climatic and market variability is such that these developments cannot operate in the short term, as this undermines investor confidence and places jobs at risk. Mr Perriam notes in his evidence that he cannot invest in converting his flood irrigated areas to more efficient spray until he has certainty around water supply.

122. In addition the evidence of the applicants, Mr Craw provides a comprehensive analysis of the financial complexities associated with the subject farms, orchards and vineyards.

123. In terms of cashflow, Mr Craw in his evidence notes that where perceived cashflow risk is higher, banks use elevated interest rates on loans to address uncertainty. Access to water, which is arguably the most critical influence on productivity in this area, therefore plays a key role in the interest rates – and hence profitability – forced upon these farms, orchards and vineyards. Shorter consent terms on water permits means higher cashflow uncertainty, and hence higher interest rates for the applicants. Higher interest rates can not only curb new land development and investment in water infrastructure, but potentially determine whether a business is ultimately profitable or not. We must consider what would happen to the subject land if it did not provide for

profitable rural land uses as it presently does. To this effect, a shorter consent term would misalign with Policy 15 of the NPSFM20, as it would present a barrier to the applicants achieving economic and social wellbeing.

124. When considering this, along with the adverse effects that water-derived uncertainty can have on the applicants' equity, a shorter consent term would restrict financing, reduce profitability, force investment (where even possible) in cheaper water infrastructure upgrades rather than more efficient and enduring ones, and restrict the applicants' ability to access capital for further land development.

125. Based on the evidence of Mr Craw and the applicants, I would therefore consider that 25 years would constitute the minimum acceptable term for replacement consents subject to these applications.

126. The determining factor for Ms Lindsay's recommended duration appears to be Policy 10.A.2.3, which advocates a maximum duration of 6 years, except where PC7 Rule 10A.3.2.1 applies and the activity will have no more than minor effects – in which case the consent can have a term of up to 15 years.

127. This term is considered by Ms Lindsay to strike an appropriate balance between the term sought by the applicants and the significant shift in policy embodied by PC7. This may be an appropriate approach where the PORPS and/or the NPSFM20 have not been assessed against an application, however in this instance (and as discussed earlier) all three applications have provided detailed assessment of the PORPS, the pRPS, and the NPSFM20 – and I consider that they are generally consistent with the provisions of these documents. There is therefore no reason to apply a temporal "mid point" between what the applicants are seeking and the length of time it will take regional policies to align with national direction. I also note that 25 years would in fact strike an appropriate balance between what was sought by the applicants (35 years) and what is authorised under Policy 10A.2.3 (15 years), which is

what the applicants are now seeking as terms of consent. I reiterate that a 25-year term would also be in keeping with the NRMP.

128. It is considered that the review conditions proposed by Ms Lindsay in conjunction with the scientific investigations that have been conducted as part of the applications are already providing a sufficiently precautionary approach. I also reiterate that the allocation sought by the applicants is less than existing paper allocation and less than what has historically been taken. For this reason, I consider that a 25-year term is consistent with the NPSFM20.

129. The positive effects of the proposal must also be considered. The economic benefits of the continued operation of the farms, vineyards, and orchards, along with the further development of up to 140 hectares into highly productive vineyards, orchards and farmland across the combined subject areas are likely to be significant. The shareholders of Deemed Permit 95789 and Smallburn in particular have committed to significantly reducing their instantaneous abstraction rates from the creeks and to maintain residual flows past the take points, which will have positive effects on the hydrology and ecology of the creeks (relative to the status quo). Furthermore, granting a longer consent term will enable the continued improvement of water take, conveyance and use infrastructure, ensuring it is in line with industry best practice and promoting water efficiency – something that would not be possible to the same extent with a shorter term (and ultimately diminished financing[25]).

130. As a result, I consider that the consent durations for these applications should be determined primarily with regard to RPW Policy 6.4.19, with little weighting given to PC7 Policy 10A.2.3 or Policy 10A.2.2 (in the case of the new Smallburn retake consent).

Proposed Consent Conditions

131. Appendix A contains draft consent conditions utilising track changes to highlight areas of proposed amendments from those recommended in the Section 42A reports.

[25] As discussed in the evidence of Mr Jones, Mr Thayer and Mr Craw, in particular.

132. Generally, I agree with the draft conditions of consent, with the exception of a few amendments, which I discuss further below. All other changes sought are largely administrative changes.

133. The key changes include:

i. Amendment of rates and volumes to those proposed in Tables 1, 2 and 3 of my evidence above

ii. Removal of separate frost fighting allocation. There is nothing to be gained with regards to this, given that acceptable frost fighting volumes have been built into the total monthly and annual allocations sought. I am also unaware of any regional or national statutory requirement for specifically monitoring frost fighting water. As the frost fighting volumes I calculated were based on historic averages, in certain years the number of frost events is bound to exceed those averages, and if the applicants are bound by specific frost fighting limits they may be unable to defend their crops from frost. As per the evidence of Mr Jones, a frost event can completely destroy a crop, with resultant disastrous financial losses.

iii. Removal of fish screening conditions for RM20.003 and RM20.005. As discussed earlier in my evidence, Rockburn dewaters their dam regularly for maintenance, and for this reason Dr Allibone has not seen fit to recommend a screen on this dam outtake. The current 95789 intake on the Amisfield Burn (RM20.005) is in a stream reach without fish, therefore there is no reason to require fish screens on the subsequent races.

iv. Removal of the 50:50 residual flow condition for the Amisfield Burn on RM20.007 and amendment of the 50:50 residual on RM20.005 for the Amisfield intake to a connective residual flow. This is in light of DOC's letter recommending a connective residual flow as an acceptable form of protection for fish and invertebrates past the Smallburn intake (which implies that the same would be true for the 95789 intake). This also reflects comments around residual flow requirements in both Dr Allibone's and Mr Campbell's

evidence, which indicate that visual or connective residual flows are acceptable given the ecological values present. I note that I did not recommend a 50% residual flow condition in the Section 92 responses as indicated in the Section 42A report, I simply noted that my understanding of the intakes was that they may only take roughly 50% of instream flows due to their simple open-channel diversionary design. As per Ms Bright's evidence, adhering to a 50:50 residual condition would be exceedingly difficult to ensure, given that it is a moving target, and I am of the opinion that the considerable expense and effort required to attempt this feat would not be equal to the potential benefit to the watercourse.

v. Deletion of the water use efficiency report requirement.

Conclusion

134. I am of the view that the effects of the proposed activities will be no more than minor, and that the proposals are generally consistent with all relevant objectives and policies, including those of the NPSFM20. Therefore, I support the recommendation that consents should be granted to the applicants in accordance with the draft conditions attached in Appendix A, for a term of 25 years.

Date: 24 August 2020

William Nicolson

APPENDIX A – PROPOSED CONDITIONS WITH TRACK CHANGES

Our Reference: A1370717

Consent No. RM20.003.01

WATER PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Rockburn Wines Limited

Address: C/- Crowe Horwath, 21 Brownston Street, Wanaka

To take and use surface water as primary allocation from the Park Burn and an unnamed tributary of the Park Burn and to retake primary allocation water from a storage reservoir for the purpose of irrigation and frost fighting

For a term expiring 1 October ~~2035~~2045

Location of Point of Abstraction: Site 1: Park Burn, approximately 2.27 kilometres ~~east~~ west of the intersection of Luggate-Cromwell Road (State Highway 6) and Smiths Way, Cromwell

Site 2: An unnamed tributary of the Park Burn, approximately 2.2 kilometres west of the intersection of Luggate- Cromwell (State Highway 6) and Smiths Way, Cromwell

Site 3 (retake): Storage reservoir, approximately 1.4 kilometres west of the intersection of Luggate-Cromwell Road (State Highway 6) and Smiths Way,

Formatted Table

Legal Description of land at point of abstraction: Site 1: Lot 3 DP 27494
Site 2: Lot 2 DP 526279
Site 3: Lot 2 DP 437387

Legal Description of land where water is to be used: ~~Lot 2 DP 437387~~Lot 1 DP 27337

Map References at point of abstraction: Site 1: NZTM 2000 E1302345 N5016651
Site 2: NZTM 2000 E1302328 N5016202
Site 3: NZTM2000 E1303103 N5015933

Conditions

Specific

1. The take and use of surface water as primary allocation from the Park Burn and the unnamed tributary of the Park Burn and the retake of primary allocation

water from the storage reservoir at the map references specified above and the land legally described above for the irrigation of 26.4 hectares and frost fighting must be carried out in accordance with the plans and all information submitted with the application, detailed below, and all referenced by the Consent Authority as consent number RM20.003
a. Application form, and assessment of environmental effects prepared by Landpro Limited dated 9 January 2020
b. Soil map and efficient water use calculations – Landpro Limited
c. Amisfield Burn hydrology report – Landpro Limited dated 28 May 2019
d. Fish survey and residual flow report – Waterways Consulting Limited dated May 2019.
If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.

2. This permit must not ~~commence~~be exercised until Deemed Permit 98526.V1 has been surrendered or has expired.

3. (a) The rate of abstraction as primary allocation from Site 1 and Site 2 must not exceed a total of 28 litres per second.
(b) The volume of water taken as primary allocation under this permit and the Consent Holder's 2/54 share in RM20.005.01 excluding frost fighting must not exceed:
i. 19,800 cubic metres per month; and
ii. ~~65,802~~87,549 cubic metres in each 12 month period, commencing 1 July of any year and ending 30 June of the following year.
(c) The volume of water taken as primary allocation under this permit for frost fighting must not exceed:
i. 62,400 cubic metres per month; and
ii. 163,800 cubic metres in each 12 month period, commencing 1 July of any year and ending 30 June of the following year.
(d) The total quantity of abstraction (under Conditions 3(b) and 3 (c) must not exceed:
i. 73,000 cubic metres per month; and
ii. ~~229,602~~237,933 cubic metres in each 12 month period, commencing 1 July of any year and ending 30 June of the following year.

4. ~~Prior to exercising this consent, the Consent Holder must install a fish screen at the outflow of the storage reservoir located at NZTM2000 E1303103 N5015933 to avoid fish ingress and uptake that complies with the following:~~
~~a) The maximum water velocity into the entry point of the intake structure is no greater than 0.12 millimetres per second;~~
~~b) The apertures on the intake screen are no greater than 3 millimetres side of square or no greater than 2 millimetres bar or slot width.~~
~~The fish screen must be fully functional at all times and maintained in good working order. Records must be kept of all inspections and maintenance and these should be made available to the Consent Authority, on request. If the fish screen is damaged and cannot be repaired or replaced immediately, the outflow must be shut down.~~

Performance Monitoring

5. a. Prior to the first exercise of this consent, the Consent Holder must install a:
i. Water meter that will measure the rate and the volume of water taken from the Park Burn and the unnamed tributary of the Park Burn to within an accuracy of +/- 10% over the meter's nominal flow range at NZTM 2000: E1302494 N5016173 . The water meter must be capable of output to a datalogger.

Commented [WN1]: The Aqualinc 90th percentile should not be applied to high-value crops like grapes, given that high-end wine varietals like pinot noir generally need exacting and on-demand quantities of water to produce a certain vintage. While the Aqualinc 90th may be applied to pastoral land uses, where stocking rates can be reduced or extra feed brought in during times of water shortage, water stress on vines may cause crop failure and significant loss of income for winemakers.

Commented [WN2]: Separating out frost fighting water from irrigation water provides no real value and is difficult to administer. The logical approach would be to adopt the figures I provided in the application, which have frost fighting capacity built in to the monthly and annual volumes, and take into account the fact that irrigation water isn't required on frost fighting days. I would suggest providing only a monthly and annual total that incorporates both irrigation and frost fighting water as proposed.

Commented [WN3]: As per Dr Allibone's evidence, there is no value in installing a fish screen on the storage offtake.

ii. A datalogger that time stamps a pulse from the flow meter at least once every 15 minutes and have the capacity to hold at least twelve months data of water taken.
iii. A telemetry unit which sends all of the data to the Consent Authority.
b. Provide telemetry data once daily to the Consent Authority. The Consent Holder must ensure data compatibility with the Consent Authority's time-series database and conform with Consent Authority's data standards.
c. Within 20 working days of the installation of the water meter / datalogger/ telemetry unit, any subsequent replacement of the water meter / datalogger/ telemetry unit and at ~~annual~~ 5-yearly intervals thereafter, and at any time when requested by the Council, the Consent Holder must provide written certification to the Consent Authority signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:
i. Each device is installed in accordance with the manufacturer's specifications;
ii. Data from the recording device can be readily accessed and/or retrieved in accordance with the conditions above; and
iii. that the water meter has been verified as accurate.
d. The water meter / datalogger / telemetry unit must be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.
e. All practicable measures must be taken to ensure that the water meter and recording device(s) are fully functional at all times.
f. The Consent Holder must ensure the water meter returns accurate readings at all times including by routinely checking the device and removing any ice or debris build up.
g. The Consent Holder must report any malfunction of the water meter / datalogger/ telemetry unit to the Consent Authority within 5 working days of observation of the malfunction. The malfunction must be repaired within 10 working days of observation of the malfunction and the Consent Holder must provide proof of the repair, including photographic evidence of any physical repairs, to the Consent
Authority within 5 working days of the completion of repairs. Photographs must be in colour and be no smaller than 200 x 150 millimetres in size and be in JPEG form.
Note: the water meter, data logger and telemetry unit should be safely accessible by the Consent Authority and its contractors at all times. The Water Measuring Device Verification Form and Calibration Form are available on the Consent Authority's website.

~~6. A water use efficiency report must be provided to the Consent Authority by 31 July each year for the period commencing 1 July the previous year and ending 30 June the current year. The report must assess the water use over the previous 12 months in respect of the efficient use of water for the purposes consented. This report must include, but not be limited to:~~
~~a) Area, crop type, number of harvests per year, and timing;~~
~~b) Annual summary of water usage (month by month, and related to crops in the ground);~~
~~c) Reasons why use may have varied from the previous year;~~
~~d) Information demonstrating irrigation equipment that has been used and decision-making regarding efficiency of use (e.g. soil moisture data, irrigation scheduling, meter accuracy checks, computer control of irrigation) and any changes planned for the coming year;~~
~~e) The date and duration of each frost fighting event and the total volume of water used during each frost fighting event.~~

Commented [WN4]: The water metering regulations only require a flow meter to be verified at least once every 5 years (per 7(3))

~~f) Any changes or modifications to irrigation (and water conveyance) infrastructure; and~~
~~g) Water conservation steps taken.~~

Commented [WN5]: The applicant already utilises highly efficient irrigation methods, therefore there is no need for a condition requiring water use efficiency reporting. If the commissioner is firm on keeping this condition, I would ask that a longer period be given in order to submit this report, as it will take some time to prepare, especially if metering consultants have a plethora of clients, all of which are asking that they prepare these reports and only 1 month is available to do so. 2-3 months is more realistic.

7. a) Within 12 months of the commencement of this resource consent, the Consent Holder must submit a Scheme Management Plan to the Consent Authority for certification. The objective of the Scheme Management Plan is to ensure the efficiency of water use and conveyance of water is improved over time. The Scheme Management Plan must that include, but not necessarily be limited to, the following:
   i. A plan identifying the irrigation area at the commencement of this consent with the number of hectares specified;
   ii. A plan identifying any new areas of irrigation developed after the commencement of this consent with the number of hectares specified;
   iii. A plan identifying proposed new areas of irrigation still to be developed with the number of hectares specified;
   iv. A description of the measures that have been implemented to improve efficiency of water use or conveyance of water since the commencement of this consent including any:
      (i) Upgrades to existing open races, including piping; and
      (ii) Establishment of any water storage infrastructure;
   v. A description of the measures that are planned to be implemented within the next five years to improve efficiency of water use and conveyance of water, including the timeframes proposed for their implementation.

   b) The Consent Holder must review and update the Scheme Management Plan at five yearly intervals. Each updated Plan must be provided to the Consent Authority for certification in the month of June of the year in which the review occurs.

General

8. The Consent Holder must ensure that at all times:
   a) There is no leakage from pipes and structures;
   b) The use of water is confined to targeted areas, as illustrated on the attached plan referenced: RM20.003.01 Irrigated Command Area; and
   c) That the volume of water used for irrigation does not exceed that required for the soil to reach field capacity and avoids the use of water onto non-productive land such as impermeable surfaces; and
   d) That irrigation to land must not occur when the moisture content of the soils is at or above field capacity.
   Note: Field Capacity is the amount of water that is able to be held in the soil after excess water has run off.

~~9. Prior to the first exercise of this consent, the Consent Holder, the Consent Holder must install a backflow prevention device to ensure water and/or contaminants cannot return to the water source.~~

Commented [WN6]: Not applicable to intakes of this nature

Review

10. 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 within three months of each anniversary of the commencement of this consent or within two months of any enforcement action taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purpose of:
a) 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, or which becomes evident after the date of commencement of the consent;
b) Ensuring the conditions of this consent are consistent with any National Environmental Standards, relevant regional plans, and/or the Otago Regional Policy Statement;
c) Reviewing the frequency of monitoring or reporting required under this consent;
~~d) Amending the monitoring programme set out in accordance with Condition 4;~~
or
e) Varying the consented instantaneous rate of abstraction, annual abstraction volume, residual flow, monitoring, operating and reporting requirements, and performance requirements to respond to:
1. the results of previous monitoring carried out under this consent;
2. water availability, including alternative water sources;
3. actual water use;
4. efficiency of water use;
5. surface water allocation limits and minimum flows set out in any future regional plan, including any review of the Regional Plan: Water for Otago;
6. surface water quality limits set out in any future regional plan, including any review of the Regional Plan: Water for Otago;
7. new statutory requirements for measuring, recording or data transmission.

Commented [WN7]: N/A

Notes to Consent Holder

1. *Water may be taken at any time for reasonable domestic or stock water purposes where and the taking or use does not, or is not likely to, have an adverse effect on the environment in accordance with Section 14 of the Resource Management Act 1991.*
2. *Under section 125 of the RMA, this consent lapses 5 years after the date it is granted unless:*
   a. The consent is given effect to; or
   b. The Consent Authority extends the period after which the consent lapses.
3. *Section 126 of the Resource Management Act 1991 provides that the Consent Authority may cancel this consent by written notice served on the Consent Holder if the consent has been exercised in the past but has not been exercised during the preceding five years.*
4. *If you require a replacement consent upon the expiry date of this consent, any new application should be lodged at least 6 months prior to the expiry date of this consent. Applying at least 6 months before the expiry date may enable you to continue to exercise this consent under section 124 of the Resource Management Act 1991 until a decision is made on the replacement application (and any appeals are determined).*
   Primary allocation may be lost if an application is not made at least 6 months prior to expiry and will be lost if an application is not made at least 3 months prior

to expiry. A late application will likely result in the application being treated as supplementary allocation, if any such allocation is available.

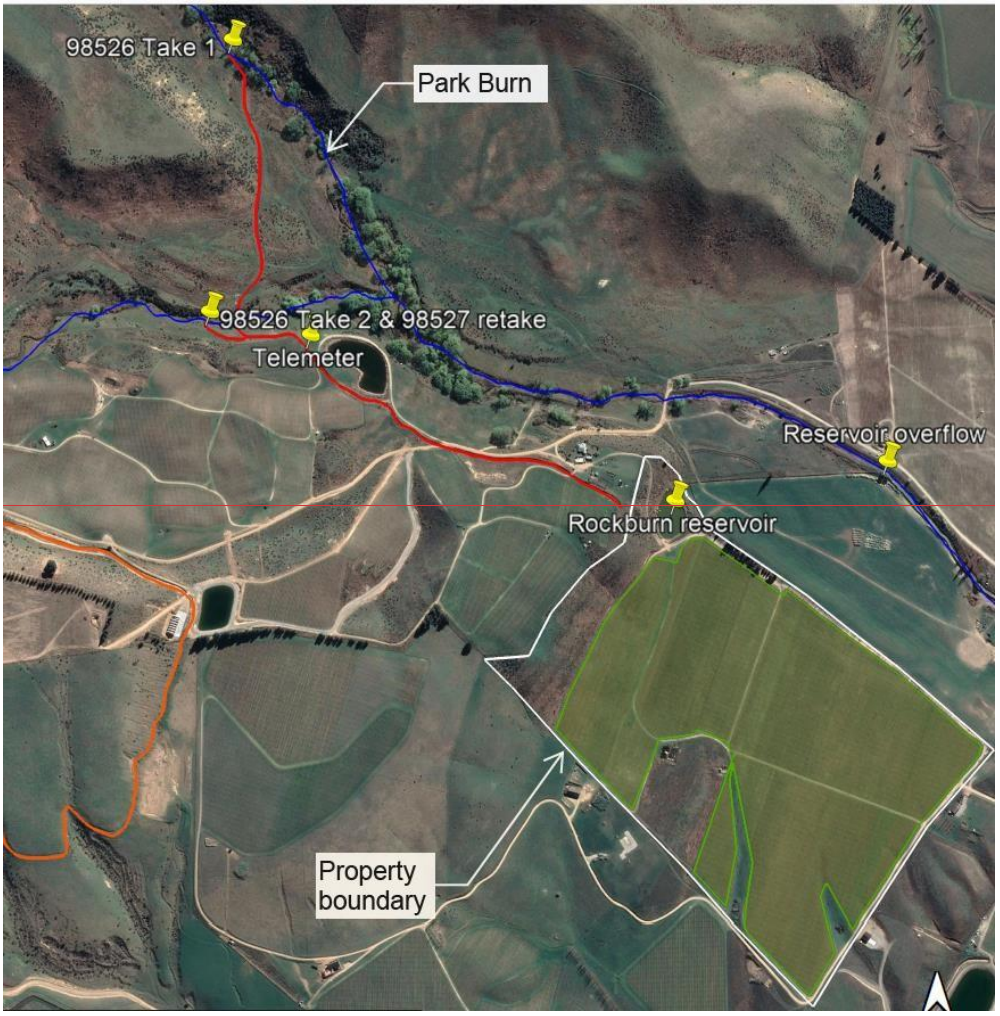
5. *The Consent Holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2004, the Biosecurity Act 1993, the Conservation Act 1987, and the Heritage New Zealand Pouhere Taonga Act 2014. This consent does not remove the need to comply with all other applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.*
6. *Where information is required to be provided to the Consent Authority, this is be provided in writing to watermetering@orc.govt.nz, and the email heading is to reference RM20.003 and the condition/s the information relates to.*
7. *The Consent Holder will be required to pay the Consent Authority an annual administration and monitoring charge to recover the actual and reasonable costs incurred to ensure ongoing compliance with the conditions attached to this consent, collected in accordance with Section 36 of the Resource Management Act 1991.*
8. *The consent holder must be aware of any rules that relate to the control of farm contaminants in runoff and leaching of nutrients to groundwater in relevant Otago regional plans. For current obligations under the regional plans, refer to the Otago Regional Council website or contact the Council on 0800 474 082.*
9. *It is the responsibility of the consent holder to ensure that the water abstracted under this resource consent is of suitable quality for its intended use. Where water is to be used for human consumption, the consent holder should have the water tested prior to use and should discuss the water testing and treatment requirements with a representative of the Ministry of Health and should consider the following Drinking Water Standards: Drinking Water Standards for New Zealand 2005 (Revised 2018).*

Issued at Dunedin this day of

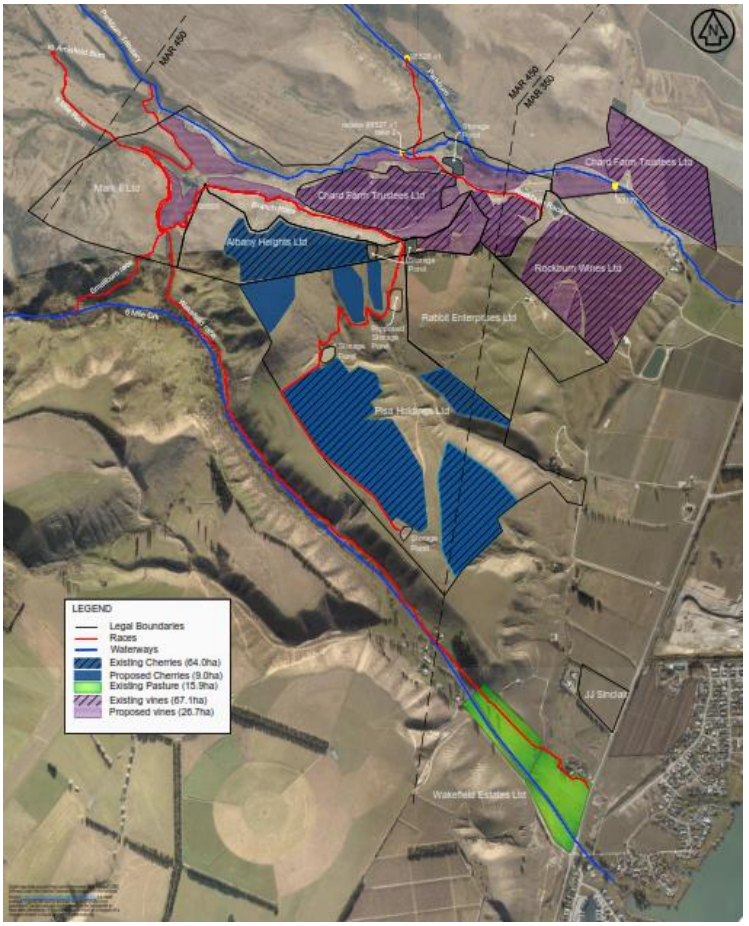
Joanna Gilroy
Manager Consents

Appendix 1: RM20.003.01 Irrigated Command Area

Commented [WN8]: Please use the map supplied below, as that shows both the Rockburn existing irrigated area AND the proposed irrigated area.



Otago Regional Council



Our Reference: A1369602

Consent No. RM20.005.01

WATER PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name:	Pisa Holdings Limited
Address:	C/o Milford Asset Management Limited, Vero Centre, 48 Shortland Street, Auckland

To take and use water from the Amisfield Burn and from associated races and reservoirs for the purpose of irrigation, frost fighting, domestic, stock water supply and race baseflow

For a term expiring 1 October ~~2035~~2045

Location of Points of Abstraction:	Amisfield Burn, approximately 4 kilometres west of the intersection of Mt Pisa Road and Cooper Lane, Pisa Moorings Retakes: 9 Mile Race, Wakefield Race, Branch Race, Albany Heights Pond, Albany Heights Pond 2, Mark II Pond, Rockburn Pond, PHL Pond 1, PHL Pond 2, PHL Pond 3.
Legal Description of land at points of abstraction:	Amisfield Burn take: Lot 3 DP 343853

Legal Description of lands where water is to be used:
Lot 2 DP 526279, Lot 2 DP 490342, Lot 1 DP 522616, Lot 5 DP 399543, Lot 1 DP 27337, Lot 4 DP 27494, Lot 3 DP 481936, Lot 1 DP 453152, Lot 2 DP 453152, Lot 3 DP 453152, Lot 4
DP 453152, Lot 1 DP 526279

Map Reference at points of abstraction:	Amisfield Burn: NZTM2000 E1300312 N5018963 Takes from water races and reservoirs: refer to Appendix 1

Conditions

Specific

1. The take and use of surface water as primary allocation from the Amisfield Burn and the retake of primary allocation water from water races and reservoirs at the map references specified above and the land legally described above for the irrigation of 166 hectares, frost fighting of 27 hectares, stock drinking supply and race base flow must be carried out in accordance with the plans and all information submitted with the application, detailed below, and all referenced by the Consent Authority as consent number RM20.005:
   a. Application form, and assessment of environmental effects prepared by Landpro Limited dated 20 December 2019;

Commented [WN1]: All of the shareholders of 95789 (with the exception of the Sinclairs) should be shown on this permit, along with their corresponding shares. I am also unsure where this address was sourced from for Pisa Holdings Ltd, as it does not match that supplied in the application.

Commented [WN2]: Purpose should include domestic, as per the application

Commented [WN3]: Proposed ponds should also be included, per the application.

b. Soil map and efficient water use calculations – Landpro Limited;
c. Amisfield Burn hydrology report – Landpro Limited dated 28 May 2019; and
d. Fish survey and residual flow report – Waterways Consulting Limited dated May 2019.
If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.

2. This permit must not ~~commence~~be exercised until Deemed Permit 95789 has been surrendered or has expired.

3. a) The rate and quantity of abstraction from the Amisfield Burn as primary allocation for all purposes excluding frost fighting must not exceed:
i. 120 litres per second; and
ii. 1~~96,556~~77,058 cubic metres per month; and
iii. 1,018,576~~811,840~~ cubic metres in each 12 month period, commencing 1 July of any year and ending 30 June of the following year.

b) The rate and quantity of abstraction as primary allocation for frost fighting must not exceed:
i. 120 litres per second;
ii. ~~64,800~~32,880 cubic metres per month; and
iii. ~~170,100~~56,880 cubic metres in each 12 month period, commencing 1 July of any year and ending 30 June of the following year.

c) The total quantity of abstraction (under Conditions 3(a) and 3(b)) must not exceed ~~241,858~~223,756 cubic metres per month and ~~981,940~~1,145,347 cubic metres in each 12 month period, commencing 1 July of any year and ending 30 June of the following year.

4. (a) ~~No more than 50 percent of the flow of the Amisfield Burn must be taken at any one time.~~A continuous connected residual flow must be maintained at all times immediately downstream of the point of take on the Amisfield Burn at NZTM2000 E1300312 N5018963 to the intake of RM20.007.01 at NZTM2000 E1300930 N5018663.
~~(b) Compliance with this condition will be a comparison of the water taken by the measuring device installed under Condition 6 of this consent and the water volumes in the Amisfield Burn as recorded by the flow monitoring site on the Amisfield Burn (Amisfield Burn at Top Take U/S) or subject to an resource consents required, the Consent Holder must modify their intake structure to ensure that no more than 50 percent of the flow of the Amisfield Burn is taken at any one time.~~
~~(c) The Consent Holder must take photographs of the residual flow at a location agreed with the Consent Authority every two weeks during the exercise of this consent. These photographs must be provided to the Consent Authority by 31 July each year. Photographs must be in colour and be no smaller than 200 x 150 millimetres in size and be in JPEG form.~~

~~5. Prior to exercising the consent, the Consent Holder must install a fish screen across outflows from the Albany Heights Pond, Mark II Limited Pond, Rockburn Wines Limited Pond, PHL Pond 1 and PHL Pond 2 to avoid fish ingress and uptake that complies with the following:~~

~~a) The maximum water velocity into the entry point of the intake structure is no greater than 0.12 millimetres per second;~~

~~b) The apertures on the intake screen are no greater than 3 millimetres side-of-square or no greater than 2 millimetres bar or slot width.~~

Commented [WN4]: As per Ms Bright's evidence and in my own opinion, seeking to comply with a condition that requires maintaining a 50% of flow residual – essentially a "moving target" – would be very difficult and will be subject to a range of issues not considered in the s42A report. The proposed replacement condition requires the applicants to maintain surface flows between their intake and the Smallburn intake several hundred metres downstream, which is more realistic and enforceable from a compliance perspective, fosters goodwill between the applicants and Smallburn in terms of water sharing, and will enable the upstream and downstream movement of invertebrates as discussed in Mr Campbell's evidence.

Commented [WN5]: This is not practical, given that the meter is located over 2 km down-race from the take point. This means that during rain events, the race can pick up flows prior to reaching the meter. Conversely, the race may also lose flows prior to reaching the meter. The result is that using the meter as an indicator for residual flow past the take point is not reliable.

Commented [WN6]: This condition is not practical or even possible, given the remote nature of the intake. Given the relatively limited downstream values of the Amisfield Burn and the creek's propensity to dry up naturally for periods of the year, I question what the benefits of this would be and draw attention to the considerable cost to the applicants to enact this condition.

Commented [WN7]: Given that no fish have been found in the creek at or above the intake, and given the fish barrier directly below the intake (waterfall), I do not see any reason to impose fish screens on the dam offtakes, as there is not likely to be fish present at any point in the system.

~~The intake screens must be fully functional at all times and maintained in good working order. Records must be kept of all inspections and maintenance and these should be made available to the Consent Authority, on request. If screens are damaged and cannot be repaired or replaced immediately, the outflow must be shut down.~~

Performance Monitoring

6. a. Prior to the first exercise of this consent, the Consent Holder must install a:
i. Water meter that will measure the rate and the volume of water taken from the Amisfield Burn to within an accuracy of +/- 10% over the meter's nominal flow range at NZTM 2000: E1300519 N5017599. The water meter must be capable of output to a datalogger.
ii. A datalogger that time stamps a pulse from the flow meter at least once every 15 minutes and have the capacity to hold at least twelve months data of water taken.
iii. A telemetry unit which sends all of the data to the Consent Authority.
b. The Consent Holder must provide telemetry data once daily to the Consent Authority. The Consent Holder must ensure data compatibility with the Consent Authority's time-series database and conform with Consent Authority's data standards.
c. Within 20 working days of the installation of the water meter / datalogger/ telemetry unit, any subsequent replacement of the water meter / datalogger/ telemetry unit and at ~~annual~~ 5-yearly intervals thereafter, and at any time when requested by the Council, the Consent Holder must provide written certification to the Consent Authority signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:
i. Each device is installed in accordance with the manufacturer's specifications;
ii. Data from the recording device can be readily accessed and/or retrieved in accordance with the conditions above; and
iii. That the water meter has been verified as accurate.
d. The water meter / datalogger / telemetry unit must be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.
e. All practicable measures must be taken to ensure that the water meter and recording device(s) are fully functional at all times.
f. The Consent Holder must ensure the water meter returns accurate readings at all times including by routinely checking the device and removing any ice or debris build up.
g. The Consent Holder must report any malfunction of the water meter / datalogger/ telemetry unit to the Consent Authority within 5 working days of observation of the malfunction. The malfunction must be repaired within 10 working days of observation of the malfunction and the Consent Holder must provide proof of the repair, including photographic evidence, to the Consent Authority within 5 working days of the completion of repairs. Photographs must be in colour and be no smaller than 200 x 150 millimetres in size and be in JPEG form.
Note: the water meter, data logger and telemetry unit should be safely accessible by the Consent Authority and its contractors at all times. The Water Measuring Device Verification Form and Calibration Form are available on the Consent Authority's website.

7. ~~A water use efficiency report must be provided to the Consent Authority by 31 July each year for the period commencing 1 July the previous year and ending~~

Commented [WN8]: The water metering regulations only require a flow meter to be verified at least once every 5 years (per 7(3))

~~30 June the current year. The report must assess the water use over the previous 12 months in respect of the efficient use of water for the purposes consented. This report must include, but not be limited to:~~
~~a) Area, crop type, number of harvests per year, and timing;~~
~~b) Annual summary of water usage (month by month, and related to crops in the ground);~~
~~c) Reasons why use may have varied from the previous year;~~
~~d) Information demonstrating irrigation equipment that has been used and decision-making regarding efficiency of use (e.g. soil moisture data, irrigation scheduling, meter accuracy checks, computer control of irrigation) and any changes planned for the coming year;~~
~~e) Any changes or modifications to irrigation (and water conveyance) infrastructure; and~~
~~f) Water conservation steps taken.~~

Commented [WN9]: The applicants already utilise highly efficient irrigation methods, therefore there is no need for a condition requiring water use efficiency reporting. If the commissioner is firm on keeping this condition, I would ask that a longer period be given in order to submit this report, as it will take some time to prepare, especially if metering consultants have a plethora of clients, all of which are asking that they prepare these reports and only 1 month is available to do so. 2-3 months is more realistic.

8 a) Within 12 months of the commencement of this resource consent, the Consent Holder must submit a Scheme Management Plan to the Consent Authority for certification. The objective of the Scheme Management Plan is to ensure the efficiency of water use and conveyance of water is improved over time. The Scheme Management Plan must that include, but not necessarily be limited to, the following:

i. A plan identifying the irrigation area at the commencement of this consent with the number of hectares specified;
ii. A plan identifying any new areas of irrigation developed after the commencement of this consent with the number of hectares specified;
iii. A plan identifying proposed new areas of irrigation still to be developed with the number of hectares specified;
iv. A description of the measures that have been implemented to improve efficiency of water use or conveyance of water since the commencement of this consent including any:
   (i) Upgrades to existing open races, including piping; and
   (ii) Establishment of any water storage infrastructure;
   (iii) Conversion to spray irrigation.
v. A description of the measures that are planned to be implemented within the next five years to improve efficiency of water use and conveyance of water, including the timeframes proposed for their implementation.

b) The Consent Holder must review and update the Scheme Management Plan at five yearly intervals. Each updated Plan must be provided to the Consent Authority for certification in the month of June of the year in which the review occurs.

General

9. The Consent Holder must ensure that at all times:
a) There is no leakage from pipes and structures;
b) The use of water is confined to targeted areas, as illustrated on the attached plan referenced: RM20.005.01 Irrigated Command Area; and
c) That the volume of water used for irrigation does not exceed that required for the soil to reach field capacity and avoids the use of water onto non-productive land such as impermeable surfaces; and
d) That irrigation to land must not occur when the moisture content of the soils is

at or above field capacity.
Note: Field Capacity is the amount of water that is able to be held in the soil after excess water has run off.

10. ~~Prior to the first exercise of this consent, the Consent Holder, the Consent Holder must install a backflow prevention device to ensure water and/or contaminants cannot return to the water source.~~

Commented [WN10]: Not applicable to intakes of this nature

Review

11. 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 within three months of each anniversary of the commencement of this consent or within two months of any enforcement action taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purpose of:
a) 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, or which becomes evident after the date of commencement of the consent;
b) Ensuring the conditions of this consent are consistent with any National Environmental Standards, relevant regional plans, and/or the Otago Regional Policy Statement;
c) Reviewing the frequency of monitoring or reporting required under this consent;
~~d) Amending the monitoring programme set out in accordance with Condition 6~~;
or
e) Varying the consented instantaneous rate of abstraction, annual abstraction volume, residual flow, monitoring, operating and reporting requirements, and performance requirements to respond to:
1. the results of previous monitoring carried out under this consent;
2. water availability, including alternative water sources;
3. actual water use;
4. efficiency of water use;
5. surface water allocation limits and minimum flows set out in any future regional plan, including any review of the Regional Plan: Water for Otago;
6. surface water quality limits set out in any future regional plan, including any review of the Regional Plan: Water for Otago;
7. new statutory requirements for measuring, recording or data transmission.

Commented [WN11]: N/A

Notes to Consent Holder

1. *Water may be taken at any time for reasonable domestic or stock water purposes where and the taking or use does not, or is not likely to, have an adverse effect on the environment in accordance with Section 14 of the Resource Management Act 1991.*
2. *Under section 125 of the RMA, this consent lapses 5 years after the date it is granted unless:*
   a. The consent is given effect to; or
   b. The Consent Authority extends the period after which the consent lapses.
3. *Section 126 of the Resource Management Act 1991 provides that the Consent Authority may cancel this consent by written notice served on the Consent*

Holder if the consent has been exercised in the past but has not been exercised during the preceding five years.

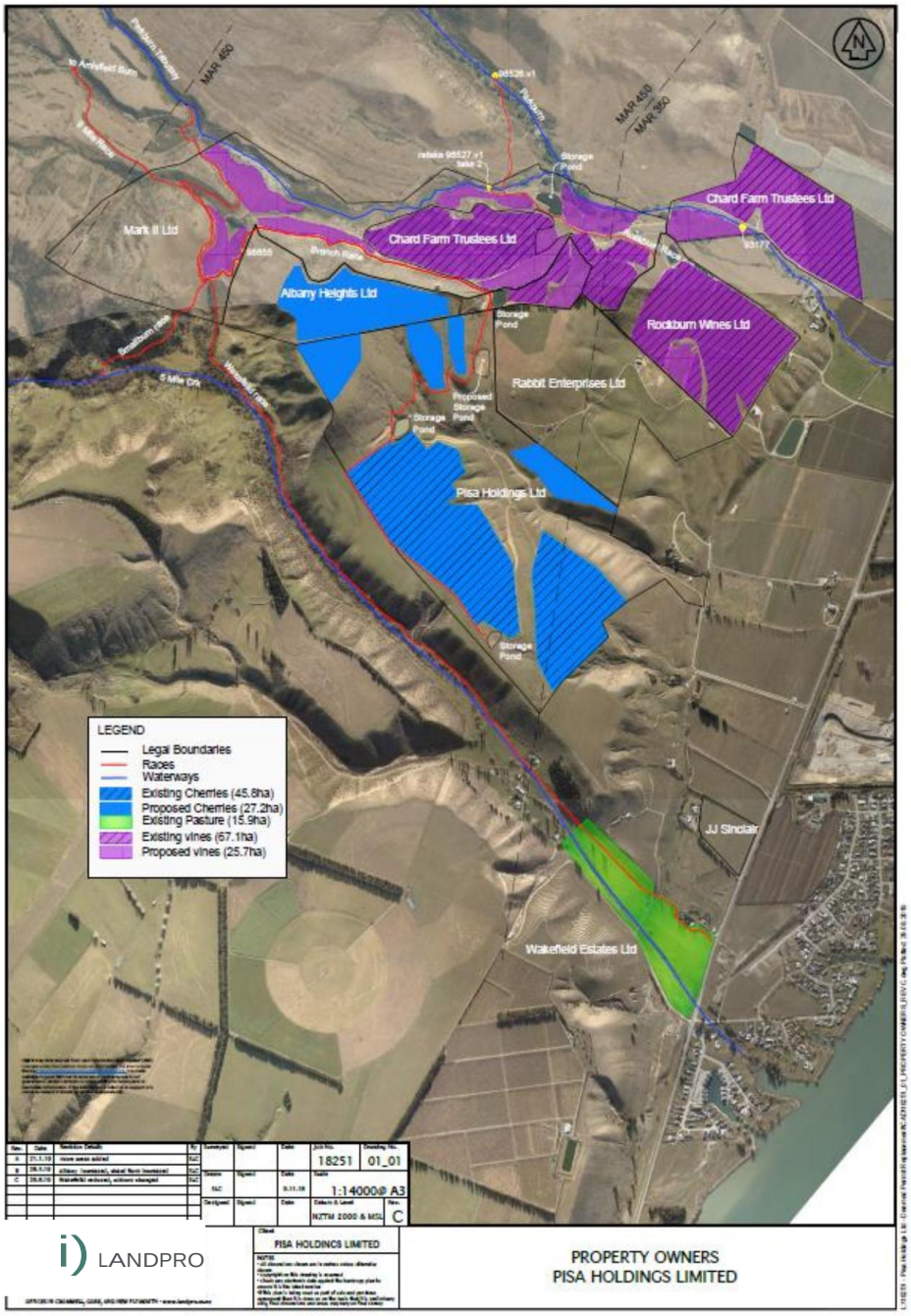
4. *If you require a replacement consent upon the expiry date of this consent, any new application should be lodged at least 6 months prior to the expiry date of this consent. Applying at least 6 months before the expiry date may enable you to continue to exercise this consent under section 124 of the Resource Management Act 1991 until a decision is made on the replacement application (and any appeals are determined).*
   Primary allocation may be lost if an application is not made at least 6 months prior to expiry and will be lost if an application is not made at least 3 months prior to expiry. A late application will likely result in the application being treated as supplementary allocation, if any such allocation is available.
5. *The Consent Holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2004, the Biosecurity Act 1993, the Conservation Act 1987, and the Heritage New Zealand Pouhere Taonga Act 2014. This consent does not remove the need to comply with all other applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.*
6. *Where information is required to be provided to the Consent Authority in his is be provided in writing to watermetering@orc.govt.nz, and the email heading is to reference RM20.005 and the condition/s the information relates to.*
7. *The Consent Holder will be required to pay the Consent Authority an annual administration and monitoring charge to recover the actual and reasonable costs incurred to ensure ongoing compliance with the conditions attached to this consent, collected in accordance with Section 36 of the Resource Management Act 1991.*
8. *The consent holder must be aware of any rules that relate to the control of farm contaminants in runoff and leaching of nutrients to groundwater in relevant Otago regional plans. For current obligations under the regional plans, refer to the Otago Regional Council website or contact the Council on 0800 474 082.*
9. *It is the responsibility of the consent holder to ensure that the water abstracted under this resource consent is of suitable quality for its intended use. Where water is to be used for human consumption, the consent holder should have the water tested prior to use and should discuss the water testing and treatment requirements with a representative of the Ministry of Health and should consider the following Drinking Water Standards: Drinking Water Standards for New Zealand 2005 (Revised 2018).*

Issued at Dunedin this day of

Joanna Gilroy
Manager Consents

Appendix 1: RM20.005.01 Irrigated Command Area

Otago Regional Council




Otago
Regional
Council


Otago
Regional
Council

Our Reference: A1370777

Consent No. RM20.007.01

WATER PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Smallburn Limited

Address: ICL Limited, Level 1, 69 Tarbert Street, Alexandra

To take and use surface water as primary allocation from the Amisfield Burn, Breakneck Creek and the Park Burn for the purpose of irrigation and stock water supply

For a term expiring 31 October ~~2035~~2045

Location of Point of Abstraction: Site 1: Breakneck Creek, approximately 4.2 kilometres northwest of the intersection of Luggate-Cromwell Road (State Highway 6) and Mt Pisa Road, Pisa Moorings
Site 2: Amisfield Burn, approximately 4.5 kilometres west northwest of the intersection of Luggate-Cromwell Road (State Highway 6) and Mt Pisa Road, Pisa Moorings
Site 3: Park Burn, approximately 4.5 kilometres west northwest of the intersection of Luggate-Cromwell Road (State Highway 6) and Smiths Way, Pisa Moorings

Legal Description of land at the points of abstraction: Lot 3 DP 343853

Legal Description of land where water is to be used: Lot 4 DP 481936, Section 44 Block V Cromwell SD

Map Reference at points of abstraction: Site 1 (Breakneck Creek): NZTM 2000 E1301340 N5019329~~E1301345 N5019169~~
Site 2 (Amisfield Burn): NZTM 2000 E1300930 N5018663~~E1300945 N5018568~~
Site 3 (Park Burn): NZTM2000 E1300164 N5017554~~E1300170 N5017299~~

Commented [WN1]: These reflect the ground-truthed points of take, as presented in the application (Section 6.12)

Conditions

Specific

1. The take and use of surface water as primary allocation from the Amisfield Burn, Breakneck Creek and the Park Burn at the map references specified above and the land legally described above for irrigation and stock water supply must be carried out in accordance with the plans and all information submitted with the application, detailed below, and all referenced by the Consent Authority as consent number RM20.007

a. Application form, and assessment of environmental effects prepared by Landpro Limited dated 14 January 2020
b. Soil map and efficient water use calculations – Landpro Limited
c. Amisfield Burn hydrology report – Landpro Limited dated 28 May 2019
d. Fish survey and residual flow report – Waterways Consulting Limited dated May 2019
If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.

2. This permit must not ~~commence~~ be exercised until Deemed Permit ~~9623~~96320, Deemed Permit
96321, Deemed Permit RM15.007.01 and Deemed Permit 94394 have been surrendered or have expired.

3. The rate of abstraction as primary allocation must not exceed:
i. a combined total of 97.3 litres per second from Breakneck Creek and the Amisfield Burn;
ii. ~~92.3~~120 litres per second from the Park Burn iii. 546,184 cubic metres per month;
and
iv .2,640,354 cubic metres in each 12 month period, commencing 1 July of any year and ending 30 June of the following year.

4. Prior to exercising this consent, the Consent Holder must install a fish screen at the outflow of the storage reservoir located at NZTM 2000 E1300763 N5013720 on Lot 4 DP 481936 to avoid fish ingress and uptake that complies with the following:
   a) The maximum water velocity into the entry point of the intake structure is no greater than 0.12 millimetres per second;
   b) The apertures on the intake screen are no greater than ~~3~~ 20 millimetres in diameter
   ~~side-of-square or no greater than 2 millimetres bar or slot width~~.

The fish screen must be fully functional at all times and maintained in good working order. Records must be kept of all inspections and maintenance and these should be made available to the Consent Authority, on request. If the fish screen is damaged and cannot be repaired or replaced immediately, the outflow must be shut down.

5. (a) No more than approximately 50 percent of the flow of ~~the Amisfield Burn and~~ Breakneck
Creek must be taken at any one time; and
(b) A continuous connected residual flow must be maintained at all times immediately downstream of the point of take on the Amisfield Burn at NZTM 2000 E1300930 N5018663~~E1300937 N5018672~~ to the waterfall at approximately NZTM 2000
E1300944 N5018666~~E1300939 N5018657~~.
~~(c) Subject to any relevant resource consents, the Consent Holder must modify their intake structures to ensure that no more than 50 percent of the flow of the Amisfield Burn and Breakneck Creek is taken at any one time.~~
~~(d) The Consent Holder must take photographs of the residual flows at locations agreed with the Consent Authority every two weeks during the exercise of this consent. These photographs must be provided to the Consent Authority by 31 July each year. Photographs must be in colour and be no smaller than 200 x 150 millimetres in size and be in JPEG form.~~

6. (a) A continuous connected residual flow must be maintained at all times immediately downstream of the point of take on the Park Burn at E1300164 N5017554~~E1300170 N5017299~~ for a distance of approximately 150 metres to the stream crossing at

Commented [WN2]: This is what was sought by the applicant and is well within the historic maximum, as justified in Ms Bright's evidence.

Commented [WN3]: In line with Dr Allibone's evidence: "if there is a need to screen smaller trout, I would recommend a mesh size in the order of 20x20 mesh for the screen."

Commented [WN4]: A continuous connected residual flow for the Amisfield Burn take is considered sufficient, given the limited downstream ecological and hydrological values and the difficulty in implementing such a residual flow to an accurate degree. I note that DOC considered a connective residual flow to be sufficient for the applicant's Amisfield take, and Mr Campbell in his evidence stated that "residual flows below water takes should maintain flow connectivity through the point of take to allow invertebrates to drift downstream and move upstream." Condition 5(b) achieves this. The applicant accepts the 50% residual for Breakneck Creek on the basis of providing water for LLHLP at their downstream take point, as agreed internally.

Commented [WN5]: This is roughly the same distance as proposed, however reflects more realistic coordinates

Commented [WN6]: This is an empty condition, in that it is essentially designed to achieve the same purpose of 5(a). It is up to the applicant to do what is needed to ensure that roughly 50% of the flow is left in the creek.

Commented [WN7]: This is not possible, given how remote and inaccessible the take points are.

~~(b)The Consent Holder must take photographs of the residual flow at locations agreed with the Consent Authority every two weeks during the exercise of this consent. These photographs must be provided to the Consent Authority by 31 July each year. Photographs must be in colour and be no smaller than 200 x 150 millimetres in size and be in JPEG form.~~

Commented [WN8]: See earlier comment regarding why this is not feasible

Performance Monitoring

7. a. Prior to the first exercise of this consent, the Consent Holder must ensure that water meter WM0952 located at NZTM 2000 E1300971 N5018554 and approved by WEX0123 and water meter WM0964 located at NZTM2000 E1300294 N5017299 and approved by WEX0124 measure the rate and the volume of water taken to within an accuracy of +/- 10% over the meter's nominal flow range. The water meters must be capable of output to a datalogger.
ii. A datalogger that time stamps a pulse from the flow meter at least once every 15 minutes and have the capacity to hold at least twelve months data of water taken.
iii. A telemetry unit which sends all of the data to the Consent Authority.
b. Provide telemetry data once daily to the Consent Authority. The Consent Holder must ensure data compatibility with the Consent Authority's time-series database and conform with Consent Authority's data standards.
c. Within 20 working days of the installation of the water meter / datalogger/ telemetry unit, any subsequent replacement of the water meter / datalogger/ telemetry unit and at ~~annual~~ least 5-yearly intervals thereafter, and at any time when requested by the Council, the Consent Holder must provide written certification to the Consent Authority signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:
i. Each device is installed in accordance with the manufacturer's specifications;
ii. Data from the recording device can be readily accessed and/or retrieved in accordance with the conditions above; and
iii. that the water meter has been verified as accurate.
d. The water meter / datalogger / telemetry unit must be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.
e. All practicable measures must be taken to ensure that the water meter and recording device(s) are fully functional at all times.
f. The Consent Holder must ensure the water meter returns accurate readings at all times including by routinely checking the device and removing any ice or debris build up.
g. The Consent Holder must report any malfunction of the water meter / datalogger/ telemetry unit to the Consent Authority within 5 working days of observation of the malfunction. The malfunction must be repaired within 10 working days of observation of the malfunction and the Consent Holder must provide proof of the repair, including photographic evidence, to the Consent Authority within 5 working days of the completion of repairs. Photographs must be in colour and be no smaller than 200 x 150 millimetres in size and be in JPEG form.
Note: the water meter, data logger and telemetry unit should be safely accessible by the Consent Authority and its contractors at all times. The Water Measuring Device Verification Form and Calibration Form are available on the Consent Authority's website.

Commented [WN9]: Per the water metering regulations

8. ~~A water use efficiency report must be provided to the Consent Authority by 31 July each year for the period commencing 1 July the previous year and ending 30 June the current year. The report must assess the water use over the previous 12 months in respect of the efficient use of water for the purposes consented. This report must include, but not be limited to:~~
~~a) Area, crop type, number of harvests per year, and timing;~~
~~b) Annual summary of water usage (month by month, and related to crops in the ground);~~
~~c) Reasons why use may have varied from the previous year;~~
~~d) Information demonstrating irrigation equipment that has been used and decision-making regarding efficiency of use (e.g. soil moisture data, irrigation scheduling, meter accuracy checks, computer control of irrigation) and any changes planned for the coming year;~~
~~e) Any changes or modifications to irrigation (and water conveyance) infrastructure; and~~
~~f) Water conservation steps taken.~~

Commented [WN10]: This seems unnecessary, particularly given that the majority of the farm has already been converted to efficient uses and the scheme management plan condition below largely covers off questions of water efficiency improvements

9. a) Within 12 months of the commencement of this resource consent, the Consent Holder must submit a Scheme Management Plan to the Consent Authority for certification. The objective of the Scheme Management Plan is to ensure the efficiency of water use and conveyance of water is improved over time. The Scheme Management Plan must that include, but not necessarily be limited to, the following:
   i. A plan identifying the irrigation area at the commencement of this consent with the number of hectares specified;
   ii. A plan identifying any new areas of irrigation developed after the commencement of this consent with the number of hectares specified;
   iii. A plan identifying proposed new areas of irrigation still to be developed with the number of hectares specified;
   iv. A description of the measures that have been implemented to improve efficiency of water use or conveyance of water since the commencement of this consent including any:
      (i) Upgrades to existing open races, including piping; and
      (ii) Establishment of any water storage infrastructure;
   v. A description of the measures that are planned to be implemented within the next five years to improve efficiency of water use and conveyance of water, including the timeframes proposed for their implementation.

   b) The Consent Holder must review and update the Scheme Management Plan at five yearly intervals. Each updated Plan must be provided to the Consent Authority for certification in the month of June of the year in which the review occurs.

General

10. The Consent Holder must ensure that at all times:
   a) There is no leakage from pipes and structures;
   b) The use of water is confined to targeted areas, as illustrated on the attached plan referenced: RM20.003.01 Irrigated Command Area; and
   c) That the volume of water used for irrigation does not exceed that required for the soil to reach field capacity and avoids the use of water onto non-productive land such as impermeable surfaces; and
   d) That irrigation to land must not occur when the moisture content of the soils is

at or above field capacity.
Note: Field Capacity is the amount of water that is able to be held in the soil after excess water has run off.

11. Prior to the first exercise of this consent, the Consent Holder, the Consent Holder must install a backflow prevention device to ensure water and/or contaminants cannot return to the water source.

Review

12. 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 within three months of each anniversary of the commencement of this consent or within two months of any enforcement action taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purpose of:
a) 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, or which becomes evident after the date of commencement of the consent;
b) Ensuring the conditions of this consent are consistent with any National Environmental Standards, relevant regional plans, and/or the Otago Regional Policy Statement;
c) Reviewing the frequency of monitoring or reporting required under this consent;
~~d) Amending the monitoring programme set out in accordance with Condition 4;~~
or
e) Varying the consented instantaneous rate of abstraction, annual abstraction volume, residual flow, monitoring, operating and reporting requirements, and performance requirements to respond to:
1. the results of previous monitoring carried out under this consent;
2. water availability, including alternative water sources;
3. actual water use;
4. efficiency of water use;
5. surface water allocation limits and minimum flows set out in any future regional plan, including any review of the Regional Plan: Water for Otago;
6. surface water quality limits set out in any future regional plan, including any review of the Regional Plan: Water for Otago;
7. new statutory requirements for measuring, recording or data transmission.

Notes to Consent Holder

1. *Water may be taken at any time for reasonable domestic or stock water purposes where and the taking or use does not, or is not likely to, have an adverse effect on the environment in accordance with Section 14 of the Resource Management Act 1991.*
2. *Under section 125 of the RMA, this consent lapses 2 years after the date it is granted unless:*
a. The consent is given effect to; or
b. The Consent Authority extends the period after which the consent lapses.
3. *Section 126 of the Resource Management Act 1991 provides that the Consent Authority may cancel this consent by written notice served on the Consent*

Holder if the consent has been exercised in the past but has not been exercised during the preceding five years.

4. *If you require a replacement consent upon the expiry date of this consent, any new application should be lodged at least 6 months prior to the expiry date of this consent. Applying at least 6 months before the expiry date may enable you to continue to exercise this consent under section 124 of the Resource Management Act 1991 until a decision is made on the replacement application (and any appeals are determined).*
   Primary allocation may be lost if an application is not made at least 6 months prior to expiry and will be lost if an application is not made at least 3 months prior to expiry. A late application will likely result in the application being treated as supplementary allocation, if any such allocation is available.
5. *The Consent Holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2004, the Biosecurity Act 1993, the Conservation Act 1987, and the Heritage New Zealand Pouhere Taonga Act 2014. This consent does not remove the need to comply with all other applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.*
6. *Where information is required to be provided to the Consent Authority, this is be provided in writing to watermetering@orc.govt.nz, and the email heading is to reference RM20.007.01 and the condition/s the information relates to.*
7. *The Consent Holder will be required to pay the Consent Authority an annual administration and monitoring charge to recover the actual and reasonable costs incurred to ensure ongoing compliance with the conditions attached to this consent, collected in accordance with Section 36 of the Resource Management Act 1991.*
8. *The consent holder must be aware of any rules that relate to the control of farm contaminants in runoff and leaching of nutrients to groundwater in relevant Otago regional plans. For current obligations under the regional plans, refer to the Otago Regional Council website or contact the Council on 0800 474 082.*
9. *It is the responsibility of the consent holder to ensure that the water abstracted under this resource consent is of suitable quality for its intended use. Where water is to be used for human consumption, the consent holder should have the water tested prior to use and should discuss the water testing and treatment requirements with a representative of the Ministry of Health and should consider the following Drinking Water Standards: Drinking Water Standards for New Zealand 2005 (Revised 2018).*

Issued at Dunedin this day of

Joanna Gilroy
Manager Consents

Our Reference: A1370777

Consent No. RM20.007.02

WATER PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Smallburn Limited

Address: ICL Limited, Level 1, 69 Tarbert Street, Alexandra

To retake and use surface water from Five Mile Creek and an unnamed tributary of the Park Burn and the retake of primary allocation water from two storage reservoirs for the purpose of irrigation and stock water supply

For a term expiring 31 October ~~2035~~2045

Formatted: Not Highlight

Location of Point of Abstraction: Site 1: Unnamed tributary of the Park Burn, approximately 3.6 kilometres west of the intersection of Luggate-Cromwell Road (State Highway 6) and Smiths Way, Pisa Moorings
Site 2: Five Mile Creek, approximately 4.1 kilometres west southwest of the intersection of Luggate-Cromwell Road (State Highway 6) and Smiths Way, Pisa Moorings
Site 3: Large dam - Lot 4 DP 481936
Site 4 Small Dam- Lot 4 DP 481936

Legal Description of land at point of abstraction: Site 1: Lot 3 DP 343853
Site 2: Lot 4 DP 481936

Legal Description of land where water is to be used: Lot 4 DP 481936

Map Reference at point of abstraction: Site 1 (Unnamed tributary of the Park Burn): NZTM 2000 E1301017 N5016576
Site 2 (Five Mile Creek) NZTM 2000 E1300507 N5015359
Site 3: Large dam: NZTM 2000 E1300763E N5013720
Site 4: Small dam: NZTM 2000 E1301110E N5012700.

Conditions

Specific

1. The retake and use of surface water from the Park Burn tributary and Five Mile Creek and the retake of primary allocation water from two storage reservoirs at the map references specified above and the land legally described above for irrigation
and stock water supply must be carried out in accordance with the plans and all information submitted with the application, detailed below, and all referenced by the Consent Authority as consent number RM20.007
a. Application form, and assessment of environmental effects prepared by

Landpro Limited dated 14 January 2020
b. Soil map and efficient water use calculations – Landpro Limited
c. Amisfield Burn hydrology report – Landpro Limited dated 28 May 2019
d. Fish survey and residual flow report – Waterways Consulting Limited dated May 2019
If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.

2. (a) The retake from the unnamed tributary of the Park Burn must not exceed 97.3 litres per second
(b) The retake from Five Mile Creek must not exceed ~~189.6~~217.3 litres per second

3. A continuous connected residual flow must be maintained at all times immediately downstream of the point of take on the unnamed tributary of the Park Burn at NZTM 2000 E1301017 N5016576 for a distance of approximately ~~140~~ 160 metres to the creek crossing downstream of the point of take (~~map reference TBC by applicant~~NZTM 2000 E1301086 N5016446).

Performance Monitoring

4. a. Prior to the first exercise of this consent, the Consent Holder must install either a flow control structure, calibrated to ensure that no more than 217.3 litres per second can be retaken from Five Mile Creek, or a:
i. Water meter that will measure the rate and the volume of water taken to within an accuracy of +/- 10% over the meter's nominal flow range within Five Mile Creek at NZTM2000 E1300507E N5015359. The water meter must be capable of output to a datalogger.
ii. A datalogger that time stamps a pulse from the flow meter at least once every 15 minutes and have the capacity to hold at least twelve months data of water taken.
iii. A telemetry unit which sends all of the data to the Consent Authority.
b. Provide telemetry data once daily to the Consent Authority. The Consent Holder must ensure data compatibility with the Consent Authority's time-series database and conform with Consent Authority's data standards.
c. Within 20 working days of the installation of the water meter / datalogger/ telemetry unit, any subsequent replacement of the water meter / datalogger/ telemetry unit and at annual intervals thereafter, and at any time when requested by the Council, the Consent Holder must provide written certification to the Consent Authority signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:
i. Each device is installed in accordance with the manufacturer's specifications;
ii. Data from the recording device can be readily accessed and/or retrieved in accordance with the conditions above; and
iii. that the water meter has been verified as accurate.
d. The water meter / datalogger / telemetry unit must be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.
e. All practicable measures must be taken to ensure that the water meter and recording device(s) are fully functional at all times.
f. The Consent Holder must ensure the water meter returns accurate readings at all times including by routinely checking the device and removing any ice or debris build up.
g. The Consent Holder must report any malfunction of the water meter / datalogger/ telemetry unit to the Consent Authority within 5 working days of observation of the malfunction. The malfunction must be repaired within 10 working days of observation of the malfunction and the Consent Holder must provide proof of the repair, including photographic evidence of physical repairs, to the Consent

Commented [WN11]: As applied for and justified in my evidence

Formatted: Space Before: 0 pt, Line spacing: Exactly 12 pt

Commented [WN12]: A flow control device, such as a rated sluice gate or suitably sized culvert with bypass, would be a much more practical way of ensuring that no more water is retaken from Five Mile Creek than is consented. A meter does not, in and of itself, prevent water take exceedances.

Authority within 5 working days of the completion of repairs. Photographs must be in colour and be no smaller than 200 x 150 millimetres in size and be in JPEG form.
Note: the water meter, data logger and telemetry unit should be safely accessible by the Consent Authority and its contractors at all times. The Water Measuring Device Verification Form and Calibration Form are available on the Consent Authority's website.

Review

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 within three months of each anniversary of the commencement of this consent or within two months of any enforcement action taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purpose of:
a) 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, or which becomes evident after the date of commencement of the consent;
b) Ensuring the conditions of this consent are consistent with any National Environmental Standards, relevant regional plans, and/or the Otago Regional Policy Statement;
c) Reviewing the frequency of monitoring or reporting required under this consent;
~~d) Amending the monitoring programme~~; or
e) Varying the consented instantaneous rate of abstraction, annual abstraction volume, residual flow, monitoring, operating and reporting requirements, and performance requirements to respond to:
1. the results of previous monitoring carried out under this consent;
2. water availability, including alternative water sources;
3. actual water use;
4. efficiency of water use;
5. surface water allocation limits and minimum flows set out in any future regional plan, including any review of the Regional Plan: Water for Otago;
6. surface water quality limits set out in any future regional plan, including any review of the Regional Plan: Water for Otago;
7. new statutory requirements for measuring, recording or data transmission.

Commented [WN13]: N/A

Notes to Consent Holder

1. *Water may be taken at any time for reasonable domestic or stock water purposes where and the taking or use does not, or is not likely to, have an adverse effect on the environment in accordance with Section 14 of the Resource Management Act 1991.*
2. *Under section 125 of the RMA, this consent lapses 2 years after the date it is granted unless:*
   a. The consent is given effect to; or
   b. The Consent Authority extends the period after which the consent lapses.
3. *Section 126 of the Resource Management Act 1991 provides that the Consent Authority may cancel this consent by written notice served on the Consent Holder if the consent has been exercised in the past but has not been exercised during the preceding five years.*

4. *If you require a replacement consent upon the expiry date of this consent, any new application should be lodged at least 6 months prior to the expiry date of this consent. Applying at least 6 months before the expiry date may enable you to continue to exercise this consent under section 124 of the Resource Management Act 1991 until a decision is made on the replacement application (and any appeals are determined).*
   Primary allocation may be lost if an application is not made at least 6 months prior to expiry and will be lost if an application is not made at least 3 months prior to expiry. A late application will likely result in the application being treated as supplementary allocation, if any such allocation is available.
5. *The Consent Holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2004, the Biosecurity Act 1993, the Conservation Act 1987, and the Heritage New Zealand Pouhere Taonga Act 2014. This consent does not remove the need to comply with all other applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.*
6. *Where information is required to be provided to the Consent Authority, this is be provided in writing to watermetering@orc.govt.nz, and the email heading is to reference RM20.~~003~~ 007.02 and the condition/s the information relates to.*
7. *The Consent Holder will be required to pay the Consent Authority an annual administration and monitoring charge to recover the actual and reasonable costs incurred to ensure ongoing compliance with the conditions attached to this consent, collected in accordance with Section 36 of the Resource Management Act 1991.*
8. *The consent holder must be aware of any rules that relate to the control of farm contaminants in runoff and leaching of nutrients to groundwater in relevant Otago regional plans. For current obligations under the regional plans, refer to the Otago Regional Council website or contact the Council on 0800 474 082.*
9. *The Consent Holder is advised that water supplied for human consumption may also need to meet the requirements of the Health Act 1956, the Drinking Water Standards for New Zealand 2005 (Revised 2018), and any other Ministry of Health requirements.*
10. *It is the responsibility of the consent holder to ensure that the water abstracted under this resource consent is of suitable quality for its intended use. Where water is to be used for human consumption, the consent holder should have the water tested prior to use and should discuss the water testing and treatment requirements with a representative of the Ministry of Health and should consider the following Drinking Water Standards: Drinking Water Standards for New Zealand 2005 (Revised 2018).*

Issued at Dunedin this day of

Joanna Gilroy
Manager Consents

APPENDIX B – REVISED RM20.005 WATER USE CALCULATIONS

Current irrigation demand

Landowner	Soils	Areas	Ha in MAR 300-400 Zone	HA in MAR 400 - 500 Zone	Smaps PAW	1000 mm PAW	900 mm PAW	600 mm PAW	Peak Daily demand (mm/day) MAR 350	Peak Daily demand (mm/day) MAR 450	M3/day	Monthly Demand (mm/m) 350 MAR	Monthly Demand (mm/m) 450 MAR	M3/MONTH	90% ile Annual Demand (mm/yr) 350 MAR	90% ile Annual Demand (mm/yr) 450 MAR	M3/YEAR	100%ile Annual demand (mm/yr) 350 MAR	100%ile Annual Deamd (mm/yr) 450 MAR	M3/Year
	Ranfurly Pasture	15.9	15.9	0	53			60	5.2	5.1	827	161	158	25,599	866	791	137,694	988	913	157,092
Wakefield	*Total*	*15.9*	*15.9*								*827*			*25,599*			*137,694*			*157,092*
	Ardgour Cherries	14.1	10.6	3.5	40	60			5.7	5.6	800	177	174	24,852	786	750	109,566	898	847	124,833
	Molyneux Cherrie	4.9	0.3	4.6	36	60			5.7	5.6	275	177	174	8,535	786	750	36,858	898	847	41,656
	Lowburn Cherries	26.8	0	26.8	38	60			5.7	5.6	1,501	177	174	46,632	786	750	201,000	898	847	226,996
Pisa holdings Ltd	*Total*	*45.8*									*2,576*			*80,019*			*347,424*			*393,485*
	Molyneux Vines	2.9	1.9	1	36		40		2.42	2.42	70	75	75	2,175	258	239	7,292	329	293	9,181
	Lowburn Vines	2.1	1.5	0.6	36		40		2.42	2.42	51	75	75	1,575	258	239	5,304	329	293	6,693
Mark II Limited	Total	5									121			3,750			12,596			*15,874*
	Ranfurly Vines	16.7	16.7	0	53		60		2.42	2.42	404	75	75	12,525	248	229	41,416	332	281	55,444
	Waenga Vines	0.9	0.9	0	55		60		2.42	2.42	22	75	75	675	248	229	2,232	332	281	2,988
	Hinds Vines	0.6	0.6	0	199		200		2.42	2.42	15	77	77	462	203	183	1,218	290	227	1,740
Chard Farm	Total	18.2									440.44			13662			44,866			60,172
	Molyneux Vines	3.3	3.3	0	36		40		2.42	2.42	80	75	75	2,475	258	239	8,514	329	293	10,857
	Waenga Vines	21.4	21.4	0	55		60		2.42	2.42	518	75	75	16,050	248	229	53,072	332	281	71,048
Rockburn Wines	Total	24.7									597.74			18525			61,586			81,905
	Molyneux Vines	1.6	0	1.6	36		40		2.42	2.42	39	75	75	1,200	258	239	3,824	329	293	4,688
	Lowburn Vines	0.8	0	0.8	36		40		2.42	2.42	19	75	75	600	258	239	1,912	329	293	2,344
Albany Heights Ltd	*Total*	*2.4*									*58.08*			*1800*			*5,736*			*7,032*
	Total	*112*									*4,620*			*143,355*			*609,902*			*715,560*

Proposed Irrigation demand

Landowner	Soils	Areas	Ha in MAR 300-400 Zone	HA in MAR 400 - 500 Zone	SMAPS PAW	1000 mm PAW	900 mm PAW	600 mm PAW	Peak Daily demand (mm/day) MAR 350	Peak Daily demand (mm/day) MAR 450	M3/day	Monthly Demand (mm/m) 350 MAR	Monthly Demand (mm/m) 450 MAR	M3/MONTH	90% ile Annual Demand (mm/yr) 350 MAR	90% ile Annual Demand (mm/yr) 450 MAR	M3/YEAR	100% ile Annual Demand (mm/yr) 350 MAR	100% ile Annual Demand (mm/yr) 450 MAR	M3/YEAR
	Molyneux Vines	1.2	1.2	0	36		40		2.42	2.42	29	75	75	900	258	239	3,096	329	293	3948
Wakefield	*Total*	*1.2*									*29.04*			*900*			*3,096*			*3,948*
	Ardgour Cherries	3.9	1.2	2.7	40	60			5.7	5.6	220	177	174	6,822	786	750	29,682	898	847	33,645
	Molyneux Cherrie	1.74	0	1.74	36	60			5.7	5.6	97	177	174	3,028	786	750	13,050	898	847	14,738
	Clyde Cherries	7.6	7.6	0	42	60			5.7	5.6	433	177	174	13,452	786	750	59,736	898	847	68,248
Pisa holdings Ltd	*Total*	*13.24*									*317.04*			*9,850*			*42,732*			*116,631*
	Molyneux Vines	9.6	0.09	9.51	36		40		2.42	2.42	232	75	75	7,200	258	239	22,961	329	293	28160.4
	Hinds Vines	7.8	0.7	7.7	199		200		2.42	2.42	203	77	77	6,468	203	183	15,512	290	227	19509
	Ardgour Vines	0.1	0	0.1	40		40		2.42	2.42	2	75	75	75	258	239	239	329	293	293
Mark II Limited	*Total*	*17.5*									*438.02*			*13,743*			*38,712*			*47,962*
	Waenga vines	1.3	1.3	0	55		60		2.42	2.42	31	75	75	975	248		3,224	332	281	4316
	Hinds Vines	1.8	1.8	0	199		200		2.42	2.42	44	77	77	1,386	203		3,654	290	227	5220
	Molyneux Vines	0.03	0.03	0	36		40		2.42	2.42	1	75	75	23	258	239	77	329	293	98.7
	Ranfurly Vines	1.1	1.1	0	53		60		2.42	2.42	27	75	75	825	248		2,728	332	281	3652
Chard Farm	Total	4.23									*102*			3,209			9,683			13,287

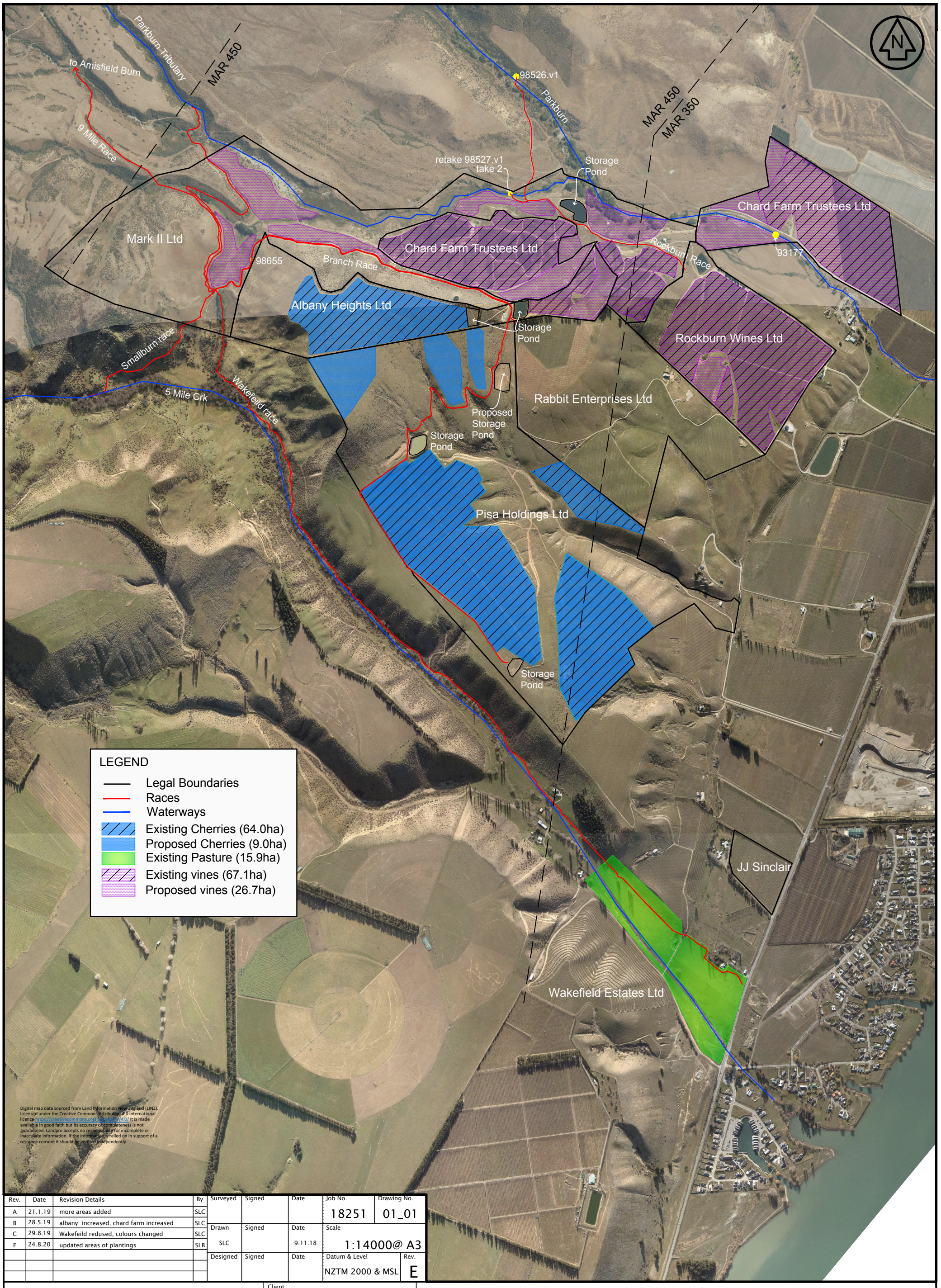
	Waenga Vines	1.7	1.7	0	55	60	2.42	2.42	41	75	75	1,275	248		4,216	332	281	5644
ckburn Vineyards L	Total	1.7							41			1,275			4,216			5,644
	Clyde Cherries	12	0	12	42	60	5.7	5.6	672	177	174	20,880	786	750	90,000	898	847	101640
	Molyneux Cherrie	0.5	0	0.5	36	60	5.7	5.6	28	177	174	870	786	750	3,750	898	847	4235
	Molyneux Vines	2	0	2	36	40	2.42	2.42	48	75	75	1,500	258	239	4,780	329	293	5860
	Lowburn Vines	1.3	0	1.3	36	40	2.42	2.42	31	75	75	975	258	239	3,107	329	293	3809
Albany Heights Ltd	Total	15.8							780			24,225			101,637			115,544
	Total	*53.67*							*1,707*			*53,201*			*200,077*			*303,016*
								total m3/d	6,327		total m3/m	196,556						
														TOTAL	**809,979**			**1,018,576**

Frost fighting ha (existing +proposed): 13.7 4110
Frost fighting ha (wakefield only) 1.2 360

Volume	Daily (m^3)	Monthly (m^3)	Annual (m^3)
Total Required (per Aqualinc calcs)	6,327	196,556	1,018,576
Aqualinc irrigation requirements - frost fighting areas	5,598		
Current paper allocation	14,400[1]	416,750	5,256,000
Frost-fighting requirements	4,110	32,880	56,880
Stock drinking requirements	5	152	1825
Baseflow required outside irrigation season	-	-	83,376
Volume sought	**9713**	**223756**	**1145347**

21 frost fighting days for Wakefield vines only, 12 frost fighting days for cherries

APPENDIX C – UPDATED WATER USE MAPS (RM20.005 & RM20.007



Rev.	Date	Revision Details	By
A	21.1.19	more areas added	SLC
B	28.5.19	albany increased, chard farm increased	SLC
C	29.8.19	Wakefeild redused, colours changed	SLC
E	24.8.20	updated areas of plantings	SLB

Surveyed	Signed	Date	Job No. 18251	Drawing No. 01_01	
Drawn SLC	Signed	Date 9.11.18	Scale 1:14000@ A3		
Designed	Signed	Date	Datum & Level NZTM 2000 & MSL	Rev. E	

LANDPRO
Make the most of your land

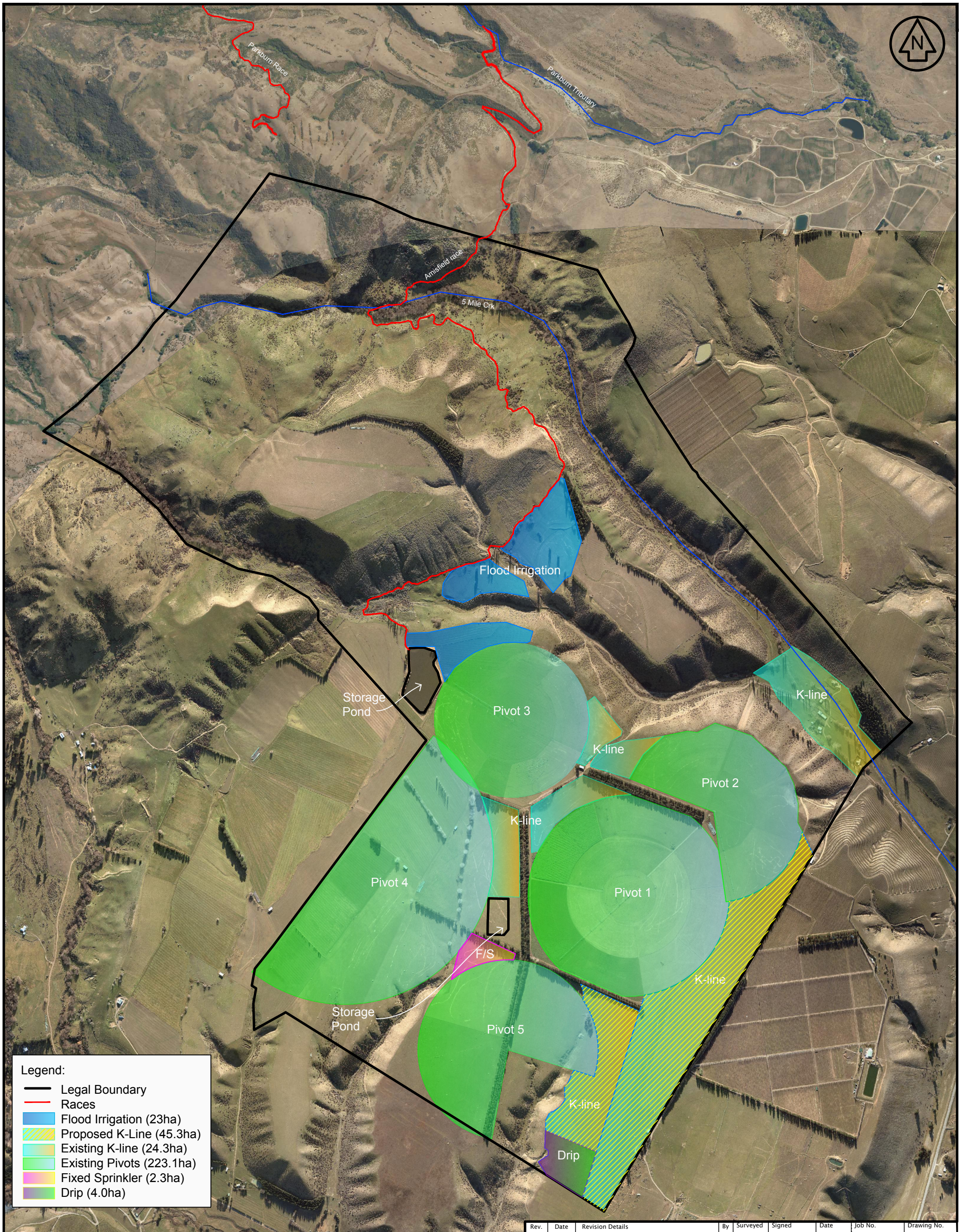
OFFICES IN CROMWELL, GORE, AND NEW PLYMOUTH - www.landpro.co.nz

Client
PISA HOLDINGS LIMITED

NOTES
- All dimensions shown are in metres unless otherwise shown
- Copyright on this drawing is reserved
- Check any electronic data against the hardcopy plan to ensure it is the latest version
-If this plan is being used as part of sale and purchase agreement then it is done so on the basis that it is preliminary only, final dimensions and areas may vary on final survey

PROPERTY OWNERS
PISA HOLDINGS LIMITED

L:\18251 - Pisa Holdings Ltd - Deemed Permit Replacement\CAD\18251_01_PROPERTY OWNERS_REV E.dwg Plotted: 24.08.2020



Rev.	Date	Revision Details	By
A	10.9.19	REVISED AREAS	-
B	14.1.20	EXISTING K-LINE ADDED	
C	19.8.20	NEW PIVOT TO EXISTING, DRIP AND F/S ADDED	

Surveyed	Signed	Date	Job No. 18249	Drawing No. 01_01
Drawn SLC	Signed	Date 26.7.18	Scale 1:15000@ A3	
Designed	Signed	Date	Datum & Level NZTM 2000 & MSL	Rev. C

LANDPRO
Make the most of your land

OFFICES IN CROMWELL, GORE, AND NEW PLYMOUTH - www.landpro.co.nz

Client
SMALLBURN

NOTES
- All dimensions shown are in metres unless otherwise shown
- Copyright on this drawing is reserved
- Check any electronic data against the hardcopy plan to ensure it is the latest version
-If this plan is being used as part of sale and purchase agreement then it is done so on the basis that it is preliminary only, final dimensions and areas may vary on final survey

IRRIGATION PLAN
SMALLBURN

L:\18249 - Smallburn Limited - Deemed Permit replacement\CAD\18249_01_IRR_REV C.dwg Plotted: 19.08.2020