IN THE MATTER OF	Applications to the Selwyn District Council (RC 135361), the Christchurch City Council (RMA 92023020 and RMA 92023808), and the Canterbury Regional Council (CRC 140366, CRC 140367, CRC 140368, CRC 140371 and CRC 142019) made jointly by Te Runanga o Ngai Tahu and the Canterbury Regional Council for consents to carry out activities associated with the artificial opening and closing of Te Waihora/Lake Ellesmere to the sea.

DECISION OF HEARINGS COMMISSIONERS

DAVID W COLLINS, BRENT COWIE AND HOANI LANGSBURY

Hearing: **3rd, 4th and 6th December 2013 at the Lincoln Events Centre**

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INTRODUCTION

1. We have been jointly appointed and empowered by all three consent authorities to determine all the applications associated with the opening, and possible closing, of Te Waihora/Lake Ellesmere ("the lake") to the sea. These consent authorities are the Canterbury Regional Council (CRC) the Selwyn District Council (SDC) and the Christchurch City Council (CCC).

2. All of us have had extensive experience with water issues in the Resource Management Act context. Dr Cowie in particular has had a long association with Lake Ellesmere/Te Waihora, having carried out work on the lake in former roles in local and central government, granted the previous consents to open the lake in 2006, and was one of three commissioners who heard and granted an application by Te Rūnanga o Ngāi Tahu and the Department of Conservation to vary the National Water Conservation Order for the lake in 2011. Mr Langsbury is of Ngai Tahu descent and has had a range of freshwater kaitiaki responsibilities throughout Otago.

3. We visited the site of the opening on the morning of 4 December 2013. We were accompanied by the CRC's works engineer and local works supervisor, and the reporting officer. The lake, which had been open since 5 October, had just closed to the sea, with a low barrier having been formed. We found the visit most informative, and we thank the applicants for organising this for us. In this same context, both Mr Langsbury and Dr Cowie have seen the lake open the sea at times when there was a strong flow of water from the lake.

4. This proposal is unusual in three respects. Firstly, it requires consents from three consent authorities. Consent from two authorities is common, but three is exceptional and arises from the opening location being at the boundary between the Selwyn District and Christchurch City. Secondly, this proposal is unusual because there are two applicants. The implications of this were raised in submissions and will be discussed below. Thirdly, and most importantly, this proposal is unusual in that consents are sought for what are occasional but quite essential activities. Resource consents are permissive, but in this case, as discussed below if the lake is not opened periodically there would be severe consequences for surrounding farmland, the fishery and the outstanding values the lake provides for.

5. We have had the benefit of comprehensive application documentation, a thorough s42A report and substantial briefs of evidence from the applicants. We also had the benefit of hearing three submitters. For these reasons we have not attempted to set out all the information and evidence in this decision; rather we have focused on the main facts, key evidence and why we have imposed particular conditions of consent. We also discuss the rather unusual situation of having two separate parties – the CRC and Te Rūnanga o Ngāi Tahu – being the applicants and via our decision, now being joint consent holders.

THE PROPOSAL

History of Openings

6. The lake has long been artificially opened to the sea. Taumutu Papatipu Rununga are known to have done so historically, and records of openings by European settlers go back as far as 1852.

7. Eventually these works became the responsibility of the CRC and its antecedent organisations, notably the North Canterbury Catchment Board. Since 1947 the minimum opening levels were set at 1.05 metres above sea level (masl) in summer (August through March inclusive) and 1.13masl in winter (May through July inclusive). During this time the lake has been opened on average 3.6 times per year, with between one and seven openings in any given year.

8. The consent granted in 2006 also provides for the lake to be opened at any level in the period September 15 to October 15, for the purposes of enhancing outstanding wildlife values by minimising the occurrence of low lake levels over the summer period. The lake is opened mechanically using large earth moving machinery. It is very difficult, and at times well nigh impossible, to successfully open the lake when there is a strong southerly swell along the coast. For this reason several attempts often have to be made to open the lake, particularly during winter months. Once the lake is open it is left to close naturally, which can occur at any time. The average opening time is 23 days, but openings can be much shorter or longer than this. A successful opening is regarded as being for four days or more. There has never been any attempt to close the lake by mechanical methods.

9. Mr Langsbury has reviewed the Te Waihora/Lake Ellesmere opening data which covers the period from August 1901 through to October 2013. The average water level at which the lake was opened was 1.26 masl, with the lowest level being 0.63 masl (October 2008) and the highest, being 2.16 masl (August 1941).

10. The shortest period that the lake has been open was 8 hours (October 2008) and the longest was 111 days between October 1951 and February 1952. The most recent opening event of a long duration was for 97 days, between August and November of 1997.

11. The data from October 2008 is consistent with Mr Harrison's evidence that is difficult to establish or maintain an opening at low lake levels as was evident at the time that this attempt was made.

12. The 112 years of data also shows a trend in more recent years (post 1970) of opening the lake at lower levels.

The Consents Sought

13. The applicants applied for seven resource consents from CRC, SDC and CCC to facilitate the opening of Te Waihora/Lake Ellesmere as follows:

Consent applications to CRC

CRC140366 - to disturb the foreshore/seabed at the opening/closing site of Te Waihora/Lake Ellesmere.

CRC140367 - to discharge water to water, to discharge water, contaminants and sediment into the CMA at the opening/closing site of Te Waihora/Lake Ellesmere.

CRC140368 - to use land to carry out earthworks on a beach and to use land within the margins and bed of a Lake at the opening/closing site of Te Waihora/Lake Ellesmere.

CRC140371 - to dam water at the opening/closing site of Te Waihora/Lake Ellesmere.

CRC142019 - to use land to temporarily store fuel at the opening/closing site of Te Waihora/Lake Ellesmere

Consent application made to SDC

RC135361 – land use consent to undertake earthworks in the Rural zone and within a culturally significant site, and outstanding natural feature.

Consent applications made to CCC

RMA92023020 – land use consent to undertake earthworks to open and close Te Waihora/Lake Ellesmere.

14. Subsequent to a request for further information, the applicants also submitted a resource consent application to CCC (RMA 92023808) for land use consent to temporarily store hazardous substances (diesel fuel) at the site of opening the lake. This application was lodged following the public notification of the above suite of resource consent applications. Commissioner Collins has been appointed to decide this application separately. The distinction about delegations is rather artificial however because we have all been appointed to consider application CRC142019 for the same matter of diesel fuel storage. It will be efficient and less confusing if Commissioner Collins' decision on the latter application to CCC is incorporated into this decision document.

15. As this later application was not publicly notified, Commissioner Collins has assessed whether it can be processed without notification. As discussed below, we all consider that the temporary storage of diesel in bowsers while an opening is be being made is very unlikely to lead to a spill. It therefore meets the criteria for consideration without public notification (section 95A of the Act), or limited notification (section 95B). The same activity was publicly notified as part of the suite of applications we have all considered, and did not attract any submissions. Consent is granted on the same conditions as consent CRC142019.

16. On a similar topic in her right of reply the applicants' solicitor, Ms Sarah Watson, agreed with the reporting officer, Ms Sally Dymond, that consent application CRC140367 should also provide for the diversion of water. She asserted that the "application clearly outlines what is proposed" so we "have the ability to grant consent to this diversion".

17. We agree with the applicants on this matter. The effects of the "diversion" were thoroughly canvassed in the application documentation, and addressed by Ms Dymond in her s42A report. We consider no party will be disadvantaged by what is only a technical change to the consents sought.

THE NATIONAL WATER CONSERVATION ORDER (NWCO)

18. Te Waihora/Lake Ellesmere has been protected by the National Water Conservation Order (Lake Ellesmere) since 1990. The first order – made under the former Water and Soil Conservation Act 1967 - was to protect the outstanding wildlife values of the lake. To protect that habitat the order prohibited, with certain exceptions, the opening or closing of the lake to the sea. The exceptions enabled the lake to be opened to the sea at the summer and winter opening levels when levels exceed 1.05 masl and 1.13 masl respectively. Additionally the lake could be opened at any level between 15 September and 15 October, and closed if the level is below 0.6 masl in October to March inclusive. The NWCO also prohibited further stop banks being constructed around the lake's margin at or below the 1.13m contour

19. An application by Te Rūnanga o Ngāi Tahu and the Department of Conservation to amend the NWCO was heard in 2011. The application was granted with amendments. The resulting National Water Conservation Order (Te Waihora/Lake Ellesmere) 1990 specified that the lake has or contributes to the following outstanding amenity or intrinsic values that warrant protection:

    a. Habitat for wildlife, indigenous wetland vegetation and fish
    b. Significance in accordance with tikanga Maori, in respect of Ngāi Tahu history, mahinga kai and customary fisheries.

20. In terms of the periodic artificial opening and closing to the sea of the lake, the NWCO provides for resource consent to be granted:

    "(a) to allow the Lake to be artificially opened to the sea whenever the Lake level—

        (i) exceeds 1.05 m.a.s.l. during any period commencing on 1 August and ending with 31 March next following; or

        (ii) exceeds 1.13 m.a.s.l. during any period commencing on 1 April and ending with 31 July next following:

    (b) to allow the Lake to be artificially opened to the sea at any time during any period commencing on 15 September and ending with 15 October next following:

(c) to allow the Lake to be artificially opened to the sea at any time during the period commencing on 1 April and ending with 15 June next following:

(d) to allow the Lake to be artificially closed from the sea whenever the Lake level is below 0.6 m.a.s.l. during any period commencing on 1 October and ending with 31 March next following."

21. Importantly the NWCO does **not** state when the lake **must** be opened to the sea. Rather it enables the lake to be opened (or closed) if one or more of (a) to (d) above are met.

22. The NWCO commissioners considered several alternative lake opening regimes in their decision. They settled on the existing summer and winter minimum levels for opening the lake, primarily because that regime had sustained the outstanding values of the lake protected by the NWCO.

23. The NWCO sets an overall framework for the management of lake levels; the detailed implementation of this framework is managed through the consent process – in this case the decisions we are empowered to make. In making our decisions we must not grant anything that would be contrary to the provisions of the NWCO (s217, Resource Management Act).

NOTIFICATION AND THE HEARING

Notification and Submissions

24. The applications were publicly notified separately by the three Councils. The details are provided in Paragraphs 25-37 of the Officer's Report. We consider that the applications were notified widely and appropriately, and that any interested party had opportunity to submit if they so wished.

25. Submissions were received from nine parties, with two submitters stating they wished to be heard in support of their submission (at the hearing a third submitter also appeared). Two submissions opposed the proposal, six were generally supportive, and one was neutral.

Evidence for the Applicants

26. The case for the Applicants was led by **Ms Sarah Watson** of Duncan Cotterill. She provided legal submissions and called eight witnesses. The evidence of five of those witnesses (Mr Goodall, Mr Horrell, Mr Cope, Mr Bonnett and Dr Meredith) was provided a little in advance of the hearing. We had no questions of Mr Goodall and Dr Meredith, but we did of each of the last three witnesses listed above, all of whom attended the hearing.

27. In her opening submissions Ms Watson traversed several substantial issues, including how the dual applicants have a Co-Governance Agreement that records

their shared responsibility for Te Waihora and its catchment. She said that the consent to open the lake could be granted under s107(2)(a) of the RMA, which provides for discharges to take place in *"exceptional circumstances",* and that the discharge could also be regarded as temporary under s107(2)(b). She also discussed issues raised by submitters, and elements of the Officer's Report.

28. We return to most of these matters later in this decision.

29. **Mr Anake Goodall** is a former chief executive of Te Rūnanga o Ngāi Tahu, and is associated with Te Taumutu Runanga. He was a founding member of the Te Waihora Management Board and its inaugural chair, and he is presently a member of the Te Waihora/Lake Ellesmere Co-Governance Board.

30. Mr Goodall outlined Ngāi Tahu's historical, cultural and economic associations with Te Waihora, the lake's enormous productivity and how the people of Taumutu were known throughout the tribe for their eels. He referred to Ngāi Tahu authority over the lake being lost as "the tide retreats", and the times since the Treaty settlement as being equivalent to "the tide turning", with the WCO including the set of values against which the lake is managed. The current applications were seen by Mr Goodall as another small and positive step forward, and aligned with other national initiatives for Co-Governance arrangements between local authorities and tangata whenua.

31. **Mr Daniel Harrison** is employed as an Area Engineer at the CRC, and in that role he has an overall responsibility for opening the lake to the sea. He described how the optimal time of opening is predicted using a computer model developed by Mr Horrell, how the opening procedure is carried out, what conditions promote a successful opening and how heavy southerly swells can prevent successful openings. Mr Harrison considered that it would be difficult to close the lake artificially, involving moving up to 2,000 cubic metres of gravel in a short time, which could involve using six or seven D9 bulldozers working at once. This could only be contemplated if the lake outlet was within days of closing naturally.

32. **Ms Leigh Skerton** is a Senior Engineering Advisor with the CRC, who works closely with Mr Harrison. She outlined the consenting history of lake openings, how the lake opening protocol meeting works in practice and why she thought the protocol should be continued. The average level of the lake is read each week and communicated to about 150 people on a mail list. An example of how information about lake and sea conditions are communicated was provided for the event in June 2013, when several unsuccessful attempts were made to open the lake following heavy rain in the catchment and during a large southerly swell. The lake was eventually on June 29 when the level was 1.80 masl.

33. **Mr Tony Boyle** is a Principal Hazard Analyst with the CRC. His evidence outlined the results of an investigation into how levels above the current "trigger" opening levels affect flooding in the Selwyn and Halswell catchments, where flood protection schemes are managed by the CRC. High lake levels could potentially affect the protection offered to the upper Selwyn Huts by existing stopbanks during large floods

in the Selwyn River. In the Halswell catchment ponding areas limit the impacts of high lake levels on high river flows.

34. **Mr Graeme Horrell** is an engineering hydrologist employed by NIWA. His M.Sc thesis was on a water balance model for the lake, and he has previously worked as a Water Resources Scientist for the CRC. His model is used to predict when the lake is likely to need opening to the sea. He outlined the main water inputs to the lake, and the main outputs, of which evaporation at 34% of total outputs is perhaps the most surprising.

35. Mr Horrell had run his water balance model for the years from 1970 to 2007 to show what the effects of implementing the NWCO will be. In summary his work shows this will:

- increase by 70% the years in which autumn and spring openings will occur;
- reduce summer openings with less days of very low lake levels;
- reduce average lake levels by 30mm; and
- result in lower average lake levels in June and July, but significantly higher average levels in August.

36. We understand that similar evidence was provided to the WCO amendment hearing, and was in part determinative of the regime imposed by the WCO.

37. **Mr Justin Cope** is a Coastal Scientist at Environment Canterbury, a role in which he monitors, investigates and reports on coastal processes in the region. He outlined how coastal processes formed the lake about 3,000 years ago. Mr Cope came to three main conclusions:

- chronic coastal erosion is a natural and ongoing process along the Canterbury Bight, and long predates the arrival of humans;
- mechanical opening of the lake has caused localised beach rollover and infilling of Te Korua lagoon during storms, but this has occurred over a short time period and has since moderated; and
- there has not been any change in coastal erosion rates over the past century that can be attributed to opening the lake.

38. More detailed monitoring of coastal erosion has been carried out since the last consents were granted, and will be continued under the new regime.

39. **Mr Marty Bonnett** is fisheries scientist formerly employed by NIWA. He gave evidence on the lake fishery, how eels (*tuna*) and flatfish (*patiki*) are the key species that support customary fisheries and mahinga kai values, and how lake openings in spring and autumn can foster the ingress and egress of juveniles and adults of these fish from the lake.

40. Again we understand that similar evidence was provided to the WCO amendment hearing, and was in part determinative of the regime imposed by the WCO.

41. **Dr Adrian Meredith** is the Principal Water Quality Scientist at Environment Canterbury. He gave evidence on the water quality and ecology of the lake. He noted that although water quality is very poor, the lake is highly productive.

42. We also understand that similar evidence was provided to the WCO amendment hearing, and was in part determinative of the regime imposed by the WCO.

The Submitters

We heard from three submitters as follows:

43. **Mr Brian Hutchinson** is a farmer on the north east end of Kaitorete Spit who supported the consent applications, but who had two main concerns. The first concern was the effects of high lake levels on his farming operations, with land being inundated and being covered in slime, which inhibits pasture growth. The second was low summer lake levels following a spring opening, which he asserted could be *"a disaster"* due to lucerne paddocks drying out and stock straying past fences. Mr Hutchinson did however support openings in autumn, and considered an optimal spring and summer level to be about 0.8m. He also considered that earthquakes may have changed the level of some land around the lake.

44. Mr Hutchinson showed us a series of photographs, which, among other things, showed the effects of the high lake level in June 2013 on his property.

45. **Mr Murray England** is the Asset Manager for Water Services for the Selwyn District Council (SDC), which includes responsibilities for stormwater and land drainage. The latter include a large number of schemes, including Osbournes, Greenpark, L2, and Leeston, all of which are affected by high lake levels.

46. Although SDC supports the applications, Mr England sought changes to the conditions listing the matters to be considered in setting the lake opening protocol. He also sought a clear and transparent process for resolving any impasse between the joint consent holders as to when the lake should be opened, and he suggested that there should be a trigger level at which every reasonable endeavour should be made to open the lake.

47. **Mr Hugh Rennie** is the chairperson of the Waihora Ellesmere Trust. This is a community organisation with 14 trustees and 300 subscribers. The Trust supported the application, but had concerns with the conditions proposed by the applicants. The Trust largely supported the evidence of Mr England for the SDC.

48. Mr Rennie listed four matters that the Trust considered were unresolved:

- a clear and transparent process to resolve any differences between the consent holders on when to open the lake;

- a trigger level at which all practical endeavours should be made to open the lake (in response to a question Mr Rennie did not say what this level should be, but suggested 1.13masl "in the interim");
- a purpose for opening the lake, which reflects the values of the WCO **and** the need to limit inundation of neighbouring land or disruption to drainage; and
- a condition about who should be on the protocol group to incorporate a list provided by SDC.

49. We have also carefully read and considered the other submissions made on the applications before us.

The Officer's Report

50. **Ms Sally Dymond** presented her officer's s42A report on the applications to us. As the report was pre-circulated it was taken as read. We found Ms Dymond's report very helpful, and we thank her for that.

51. Ms Dymond had reconsidered a number of matters in her report in light of the hearing, and she discussed those with us. In particular she now thought no take application was necessary, but she agreed with Ms Watson that a divert application was required, but could be granted with no additional formality as the effects had already been thoroughly canvassed. Ms Dymond accepted the effects of granting the applications were much more than minor, but noted that most of these effects were strongly positive. She continued to support the applications being granted.

Right of Reply

52. In her right of reply on behalf of the applicants Ms Watson canvassed seven matters: decision making with the joint applicants; whether a "purpose" is necessary for the consents; the lake opening protocol; whether a maximum level should be imposed as a consent condition; the wording sought by Mr England for the protocol; emergency powers; the need for a diversion consent; and consent conditions.

53. We have addressed all these matters in the substance of this decision.

STATUTORY ASSESSMENT

Status of the Activities

54. Both the reporting officer, Ms Dymond, and the applicants' planner, Ms McIntrye, considered that as several of the applications are made are for non-complying activities, then the applications should be "bundled" and all treated as non-complying. We agree with that approach as it is consistent with case law under the RMA cited by Ms Dymond.

55. This means that in order for the consents to be granted the applications must pass one of the "gateway" tests of s104D of the RMA, which states in part:

a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—

(a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or

(b) the application is for an activity that will not be contrary to the objectives and policies of—

(i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or

(ii) the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or

(iii) both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.

56. The case law regarding sub-section (b) above is that "not contrary to" means that a proposal is not "repugnant to" objectives and policies. It is also important to note that those objectives and policies in plans need to be read collectively rather than individually. In other words, the objectives and policies are not a series of hurdles each of which has to be cleared. That is significant in this case because as discussed below we are not persuaded that the package of proposals can meet the first "gateway test" for non-complying activities. Some adverse effects would be more than minor.

57. In making our decisions on the applications, we also need to consider the other matters under s104 of the Act. These are all subject to Part 2 of the Act, and include actual and potential effects, any relevant National Policy Statements, the Regional Policy Statement, Regional and District Plans and any other relevant matter.

58. There are several relevant Part 2 (sections 5-8 of the Act) matters in this case. The purpose of the RMA is set out in section 5. It is broadly enabling, (managing and protecting resources to enable people and communities to meet their needs) but this is subject to provisos about sustaining the capacity of resources to provide benefits into the future, and avoiding or mitigating adverse effects of activities. We are in no doubt that the resources of Te Waihora/Lake Ellesmere are of huge significance and that this overarching purpose requires that the lake is carefully managed and artificially opened.

59. Section 6 in Part 2 of the Act sets out several "*matters of national importance*" which we are to "*recognise and provide for*". Relevantly here these include section 6(a) *"The preservation of the natural character of the coastal environment…and the protection of them from inappropriate subdivision, use and development."*, section 6(c) *"The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.", section* 6(e) *"The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga."* and section 6(g) *"The protection of protected customary rights."*

60. There is some tension between what is proposed and section 6(a), but as discussed below the local environment where openings have been carried out for a very long time is much modified.

61. Section 7, also part of Part 2 of the Act also includes several relevant matters, which in the case of section 7 we have to *"have particular regard to."* These are section 7(a) *"Kaitiakitanga",* section 7(aa) *"The ethic of stewardship',* section 7(b) *"The efficient use and development of natural and physical resources",* section 7(c) *"The maintenance and enhancement of amenity values",* section 7(d) *"The intrinsic values of ecosystems", and* section 7(g) *"The finite characteristics of natural and physical resources."* We discuss these matters in assessing the actual and potential effects of the proposal under several headings below.

62. One matter raised by submitters was whether the consents should have a "purpose". We do not think this is necessary, and it may not be lawful. There is no requirement under the RMA for consents to have any stated purpose, and the purpose is in any case inherent in the activities for which consent is sought.

Section 107 of the Act Considerations

63. Section 107 places constraints on the granting of any discharge permits. In essence consent can only be granted if an application meets all of set of criteria under s107(1), or alternatively, that one of the three "exemption criteria" in s107(2) apply.

64. The applicants acknowledged that the discharge permit application cannot be granted under s107(1). In particular, the discharge will give rise to the production of suspended materials and have a conspicuous effect on the colour and clarity of the receiving environment, which in this case are the coastal waters off Kaitorete Spit as far north as the southern bays of Bank's Peninsula.

65. Counsel for the applicants argued that the consent could be granted under the "exceptional circumstances" provision of s107(2)(a) of the Act. She said that as the activity had been occurring since the 1800's, and because otherwise the lake would not breach until it had inundated large areas of land, the discharge met that criterion.

66. We have read the relevant case law, and we do not think it supports the applications being granted as an "exceptional circumstance" under s107(2)(a). Rather that case law focuses on short term consents being granted until specific problems with a discharge can be resolved (e.g. Gisborne sewage discharge; *Poakau Trust v Gisborne DC, A162/03),* or that future improvements in technology will reduce effects so that s107(1) considerations can be met (e.g. Tasman Pulp and Paper Mill; *Marr v Bay of Plenty RC, NZEnvC 347 (2010) 16 ELRNZ 197).* It also seems contradictory that an activity that is carried out about 3.6 times per year on average is an "exceptional circumstance".

67. We do think however that the discharge permit application can be granted under s107(2)(b), as the discharge is "of a temporary nature". The discharge occurs only until the lake closes. In this context we also note that the main adverse effects under s107(1), and particularly those relating to conspicuous effects on colour and clarity of the receiving waters, are also only temporary. If the lake remains open for several

weeks or more, tidal inflows and outflows are largely of more clear salt water, and the discharge plume so evident when the lake is first opened can no longer be seen.

ACTUAL AND POTENTIAL EFFECTS

68. The actual and potential effects of granting the applications can be considered under seven headings. These are a little different from those put forward by Ms Dymond and Ms McIntyre in their s42A report and evidence respectively. Our assessment places more weight on the outstanding natural values protected by the NWCO, and the effects of the consents sought on those values.

Effects on the Values of Kaitorete Spit

69. The spit has high natural values, including landscape values, cultural and historical sites, bird breeding areas and significant indigenous plant species.

70. The lake has been opened to the sea hundreds of times, more or less in the same place, for over 150 years. The site of the opening is not vegetated, and any evidence of historic or cultural sites there will now be long gone. Although species such as dotterels do nest and breed at the site of the opening, we would be surprised if any colonial nesting species breed nearby, as there is no particular food resource to attract them there (compared with around river mouths, where shoaling fish can provide plentiful food).

71. We have required the consent holders to use “all practicable measures” to ensure that lake openings do not disturb nesting birds. In saying this we recognise that disturbance at the actual site of the opening will at times be inevitable, but often there will be no good reason why breeding birds in the surrounding area cannot remain undisturbed.

72. We have also provided for diesel to be stored temporarily on site to allow machinery to be refueled. We are confident that the conditions proffered by the applicant relating to fuel storage strongly limit (but can never prevent) the possibility of a significant fuel spillage near where the lake is opened.

73. We have no concerns about exactly where the shingle spoil from the lake opening is deposited. Our understanding is that presently most shingle is put on the north side of the cutting made for the opening, and in the large scale of the local environment and the effects of storms on the spit, we see no issue with that.

74. The applicants also seek consent to excavate kōumu channels for eeling in the vicinity of the opening site. We see no reason why these should be formed only using hand tools, as this would be very inefficient given the scale of the local environment, but we have required they be limited in scale and size to achieving the outcome being sought (i.e. facilitating adult eel migration towards the sea to provide for mahinga kai). As such excavations could disturb wahi tapu and/or wahi taonga sites of cultural importance, we have required that an Accidental Discovery Protocol specific to this activity be entered into with Taumutu Runanga.

Effects on Habitat for Wildlife, Indigenous Wetland Vegetation and Fish

75. Lake openings have an overall beneficial effect on the outstanding habitat values of the lake for a number of reasons. These reasons were traversed in the Commissioners' decision on the application to vary the NWCO, and are now briefly outlined.

76. Openings allow poor quality, discoloured water from the lake to be discharged to the ocean, and allow salt water to enter the lake. This is very important because many of the wetland saltmarsh plant species survive best in moderate salinities.

77. Openings prevent saltmarsh communities around the lake from being inundated by water for long periods, with consequent adverse effects. Variable lake levels enhance these saltmarsh communities, and help provide nesting, roosting and feeding opportunities for the great range of wetland birds that inhabit the lake and its margins.

78. Openings allow many species of migratory and non-migratory fish to enter and leave the lake.

Effects on Tikanga Maori, Mahinga Kai and Customary Fisheries

79. In the context of Te Waihora much of the tikanga associated with the lake and the people of Taumutu was the ability to provide mahinga kai, particularly eels, for the tribe.

80. The 2011 variation to the NWCO provided for openings that would particularly facilitate fish migration. An autumn opening provides for the egress of adult eels to sea to spawn; a spring opening for the ingress of juvenile glass eels and juvenile flounder. Longer openings in spring may also have significant benefits, particularly for recruitment of all three species of flounder fished for in the lake. This was reinforced by Mr Bonnett's evidence for the applicants. He described the conditions that foster ingress of glass eels in spring – tidal conditions and incoming spring tide being amongst them. He also thought it likely that such conditions in spring would also encourage juvenile flounders to enter the lake.

81. Granting the applications, and particularly those parts providing for autumn and spring openings and the construction of kōumu channels, will have positive effects on maintaining the outstanding values of the lake for Ngāi Tahu.

Effects on Natural Hazards

82. The original reasons for opening the lake to the sea were to avoid or mitigate effects of inundation on surrounding land and associated river and drainage networks. These strong positive effects remain as valid now as they ever were, recognising that the lake is now more actively managed for a wide range of values, many of which are outstanding and so are protected by the NWCO.

83. There is no doubt that lake levels strongly affect farm operations close to the lake, as outlined in the evidence of Mr Hutchinson and the attachments from drainage scheme members attached to Mr England's evidence. However we cannot change

the operating regime set by the NWCO, and we note the timing of a successful opening of the lake, and the time taken for it to close, are both highly reliant on sea and storm conditions. We do however think that there should be a discussion in the protocol group on whether levels should be set at which the lake will be opened, regardless of other considerations, to relieve flood and drainage threats. We discuss this further below.

84. Mr Cope's evidence was that opening the lake to the sea at the present opening site has had little effect on coastal erosion rates to both the north and south. The applicants offered to carry out further monitoring of coastal erosion rates, and our decision provides for that in Schedule 3.

Effects on the Coastal Marine Area

85. When the lake is first opened to the sea there is often a visible plume of discoloured water stretching as far as the southern bays of Banks Peninsula. This plume becomes less visible once the lake is opened for a few weeks or more as tidal inflows and outflows begin to dominate.

86. While this is an adverse visible effect, it is temporary and is effectively no different from the plumes visible offshore when Canterbury alpine rivers, such as the Rakaia and Waimakariri, are in high flow. The effect would occur regardless – and for a much longer period - if the lake was left to open "naturally".

Effects on Amenity and Recreational Values

87. As noted above the plume from the discharge is visible in the ocean, and sometimes the southern bays of the Peninsula for some time after the lake is opened. Heavy machinery used to open the lake is noisy, and although this disrupts the peacefulness of the local environment, the noise is not expected to exceed the noise limits specified in the CCC (Banks Peninsula section) and SDC District Plans. We have placed a "nuisance noise" condition on the consents granted, but in doing this we recognise that there has never been a noise complaint. Noise from opening the lake is something that the local Taumutu community is well used to, and is likely to be accepted as an unavoidable effect of a process that is supported.

Effects on the Coastal Confined Aquifer

88. There is a possibility that as a lake opening scours out the coastal confined aquifer could be breached. We have no concern about this, as any flow in the aquifer will be seawards in any case.

Conclusion about Effects on the Environment

89. We conclude that although opening of the lake causes some adverse effects on the environment, such as the adverse effect on the natural character of the coastal environment, the positive effects of granting the applications much outweigh any adverse effects.

OBJECTIVES AND POLICIES IN THE REGIONAL AND DISTRICT PLANS

90. In their documentation supporting the application, the applicants fully evaluated all the national, regional and district policies and planning instruments relevant to the present applications. This included relevant Iwi Management Plans. Ms Dymond repeated much of this evaluation in her s42A report.

91. It is not necessary to repeat part of all or that evaluation in this decision. For our purposes the key finding is that, read collectively, all the relevant planning instruments are not contrary to the applications being granted as ones for non-complying activities under section 104D of the Act. Accordingly we find that the applications can be granted under the second limb of the "gateway" tests of section 104D.

92. We could not grant the applications under the first limb of s104D. This is because some unavoidable adverse effects of granting the applications are far more than minor. As the proposal can pass the second "threshold test" of secton 104D, this is not a barrier to granting consent under section 104. In our assessment this is a case where the positive effects of granting the applications, particularly on sustaining the lake's outstanding values and limiting the effects of flooding and inundation on land surrounding the lake, much outweigh the adverse effects. This is an instance where the implicit assumption in the RMA that non-complying activities generally have more significant adverse effects than positive effects does not stand up.

PRINCIPAL ISSUES AND FINDINGS OF FACT

Need for the Consents to be Granted

93. Given the alternatives, we did not consider declining the applications to be a viable option. The first alternative – letting the lake open "naturally", which might occur at a level of about 4 masl would be unacceptable to any party. It would seriously erode the outstanding values of the lake, and lead to quite massive flooding and inundation of large low-lying areas around and well beyond the margins of the lake. The second alternative – to rely on the emergency powers of a local authority under s330 of the Act - would effectively be nonsense. As the activity needs to be ongoing, consents would need to be sought under s330A in any case.

94. We could also see no reason why the consents sought should not be granted for the 15 year term sought by the applicants.

95. For these reasons our decision effectively became one of what terms and conditions consent should be granted on.

The Dual Consent Holders

96. One of the principal issues of concern to submitters, and one that we share, was how the two applicants would work together to agree when the lake should be opened to

the sea. The question posed was "what happens if one consent holder believes that the lake should be opened, and the other party does not agree, and how would this impasse be resolved".

97. On behalf of the applicants Ms Watson was adamant that the "Co-Governance Agreement" between Ngāi Tahu and the CRC provides a clear pathway for resolving any such dispute. In practice this means that the decision to begin opening the lake is taken jointly by the CRC's Director of Operations and the Manager of Tribal Interests for Ngāi Tahu. She was confident that this process would work well. 98. The co-applicants in this consent activity are Treaty partners as recognised by the Ngāi Tahu Claim Settlement Act 1998. The Act provides for the relationships between both Central and Local Government to act as Treaty Partners within the context of the Treaty of Waitangi.

99. This relationship has been taken further with the Co-Governance Agreement being entered into between Environment Canterbury and Te Runanga o Ngāi Tahu the statutory partners in the agreement. Effect is given to the agreement on behalf of Iwi by representatives of Taumutu Runanga who are manawhenua manamoana for the area that the activity will take place in. The hapu and whanu of Taumutu Runanga are also the kaitiaki of Te Waihora and the species that live within it.

100. Our conclusion after hearing from the parties and considering this issue carefully is that given this special relationship the potential for significant conflict between the joint consent holders is slight. In any case it appears that the only likely dispute between them will be about the exact timing of attempts to open the lake, not about matters of principle.

Should Levels be specified at which the Lake Opening becomes the Priority?

101. All three submitters who appeared at the hearing thought that there should be a level or levels specified at which, regardless of other considerations, *"the bulldozers should roll"* (to quote Mr Rennie) to open the lake. They were very reluctant however to nominate what level this should be, although Mr Rennie suggested 1.13 masl "*in the interim."*

102. The applicants, through Ms Watson, strongly opposed such a provision being included as a condition of consent. In essence her argument was that consents are enabling and not mandatory, and the consent holders cannot be compelled to exercise those consents in a particular instance. Such a condition would therefore be *ultra vires.* Ms Watson also argued that there was very little evidence available for us to determine an appropriate maximum lake level in any case. We accept this last point.

103. We are not convinced however that it would be *ultra vires* to specify a lake level (or levels, as it could vary seasonally) at which prevention of further flooding should take priority. There is no obligation for a consent holder to exercise a consent, but once a consent holder has chosen to do so any conditions attached to the consent, including conditions specifying how the consent is to be exercised, have to be met. The consents in this case would be exercised the first time the lake is opened. Ms

Watson's approach would be to treat each period between openings as times when the consents have not been exercised.

104. Section 108 of the RMA imposes limits on the scope of conditions, in particular they have to be for a resource management purpose and they have to relate to the consented activity. A trigger lake level could meet those criteria.

105. In the end however we have not specified a trigger level or levels in the conditions because we have no evidential basis on which we could make them. Participants at the hearing were not prepared to make any formal recommendation on what such levels should be. We have however included a provision in the matters for consideration in the protocol that requires discussion of whether there should be a level or levels at which inundation of adjacent land and/or effects on waterway networks and infrastructure become the primary consideration.

106. We have made other changes to the matters for consideration in setting the protocol also. In particular, these specify the outstanding values protected by the NWCO. Although we have not assigned any weighting to these matters, in our view the protection of the lake's outstanding values should be the primary emphasis in determining the protocol (a matter which we disagree with Mr Rennie about). However, we will leave others to decide the merits of that.

CONDITIONS OF CONSENT

107. As discussed above, we have no doubt that the consents should be granted so our focus has been on explaining our reasoning and considering appropriate conditions. We have been assisted in the latter with suggested sets of conditions provided by Ms Dymond and by Ms Watson/Ms McIntyre.

108. In our assessment there is no need to control the depth of excavation from ground level or relative to the water table. Earthworks are undertaken to the depth required to start an outflow and if successful the lake water soon erodes the shingle to below the artificial excavation in any case.

109. We have included a condition specifying a procedure for dealing with any complaints about noise from earthmoving machinery, partly because it was volunteered. In practice residents at Taumutu are accustomed to the inevitable noise and tolerate it because they support opening of the lake.

110. There was some discussion at the hearing about the potential for the works to adversely affect nesting birds. The area concerned is not an important area for wildlife, partly because it has been repeatedly cleared of vegetation but some birds do nest there. We understand that prior to an opening any nests are identified and marked so that vehicles do not drive over them. We doubt that it would be possible to successfully move nests (they would be abandoned) and there would be no

additional benefit in having the nests identified by an ornithologist. The condition imposed just requires that "all practical measures" are taken to avoid disturbance of nesting birds.

111. Detailed conditions have been imposed to control the equipment used for refueling vehicles, the manner in which refueling is undertaken, and the response to any spill. We consider these are necessary and practical. It is noted that although consent is sought to store fuel, the practice is to use a tanker which is not left on the site overnight, which eliminates the potential for a spill caused by unauthorized access to a storage facility.

112. We have considered whether works to form kōumu (trenches to facilitate eel passage) should be limited in scale by allowing only the use of hand tools or machinery of a defined maximum size. The scale of works is already restricted by the description of kōumu in the application and the defined area where they may be constructed. Given that kōumu could be required at short notice, we consider that it is better not to include any constrains on how they are constructed.

113. We have added a clause to the volunteered condition dealing with the accidental discovery of koiwi tangata (human bones) and taonga (artifacts in this context) requiring that the protocol set out is to be explained in writing to every driver of earthmoving machinery working on the site.

114. As is normal practice for consents permitting activities with potential for unforeseen adverse effects on the environment, we have included conditions giving the consent authorities power to review the conditions on the consent each year in the light of experience.

DECISION

For the reasons discussed above, all the consents are granted, pursuant to sections 104, 104B and 104D of the Resource Management Act, subject to the attached conditions.

David W. Collins (chairperson)

Brent Cowie

Hoani Langsbury

Hearings Commissioners

20th January 2014

TE WAIHORA / LAKE ELLESMERE CONSENT CONDITIONS

CRC140366 To disturb the foreshore/seabed at the opening/closing site of Te Waihora/Lake Ellesmere.

CRC140368 To use land to carryout earthworks on a beach and to use land within the margins and bed of a lake at the opening/closing site of Te Waihora/Lake Ellesmere.

RC135361 To use land to undertake earthworks in the Rural zone and within a culturally significant site, and outstanding natural feature.

RMA92023020 Land use consent to undertake earthworks to open and close Te Waihora/Lake Ellesmere.

1. The works authorised by these consents shall be limited to:

    a. Excavation, deposition and disturbance of beach and lake material associated with:

        i. The creation of a connection from Te Waihora/Lake Ellesmere (the Lake) to the sea;

        ii. Works to close the Lake from the sea;

        iii. Aiding mahinga kai/fish migration;

        iv. Works associated with lake-bed sampling and deep channel mapping; and

        v. Works associated with maintaining a lake opening.

    b. Disturbance of the Coastal Marine Area and lake-bed by operating vehicles and machinery for the purposes of opening or closing the Lake to the sea, aiding mahinga kai/fish migration, and carrying out lake-bed sampling and deep channel mapping; and

    c. Refuelling of vehicles and machinery.

2. Earthworks associated with aiding mahinga kai/fish migration shall only occur between map references BY23:488-436 and BY23:509-441 as indicated by the yellow lines on Plan CRC140368 attached to and forming part of this consent.

3. Prior to commencing works, the consent holders shall provide a copy of this resource consent to all persons undertaking activities authorised by this consent, and explain to those persons how to comply with the consent conditions.

4. The Lake may only be artificially opened to the sea, in accordance with the "National Water Conservation (Te Waihora/Lake Ellesmere) Order 1990:

    a. When the lake level exceeds 1.05 metres above sea level (m.a.s.l) during any period commencing 1 August and ending the following 31 March;

b. When the lake level exceeds 1.13 m.a.s.l during any period commencing 1 April and ending the following 31 July;

c. Notwithstanding clauses (4)(a) and (b), the lake may also be artificially opened to the sea any time during the period commencing:

i. 15 September and ending the following 15 October; and

ii. 1 April and ending the following 15 June.

Advice note: The lake level must be measured as prescribed in the National Water Conservation (Te Waihora/Lake Ellesmere) Amendment Order 2011.

5. The Lake may be closed from the sea when the lake level is below 0.6 m.a.s.l during the period 1 October to the following 31 March, for the purposes of enhancing or protecting outstanding values recognised under the National Water Conservation (Te Waihora/Lake Ellesmere) Amendment Order 2011.

Advice note: The lake level must be measured as prescribed in the National Water Conservation (Te Waihora/Lake Ellesmere) Amendment Order 2011.

6. The consent holders shall notify:

a. the Canterbury Regional Council (Attention: RMA Compliance and Enforcement Manager); and

b. Selwyn District Council (Attention: Planning Manager);

c. Christchurch City Council (Attention: Manager Resource Consents); and

d. the office of Te Taumutu Rūnanga

of their intention to open or close the lake at least two working days prior to commencement of any excavation in terms of these consents. Where excavation is to be commenced after being discontinued for more than seven consecutive working days, the parties shall be re-notified.

7. The consent holder shall develop the *"Protocol for the Opening and Closing of Te Waihora / Lake Ellesmere*" (the Lake Protocol"). The Lake Protocol will include:

a. Identification of the organisations involved;

b. Affirmation of the values being managed through lake openings; and

c. A consultation process to assist the Consent Holders in deciding if and when the lake shall be opened.

8. The Lake Protocol shall list the matters for consideration which must include the following, in no particular order:

a. Protection of the outstanding habitat for wildlife, indigenous wetland vegetation and fish provided by the Lake;

b. Protection of the outstanding values associated with tikanga Maori, including for mahinga kai and customary fisheries;

c. Summer lake level management to reduce the instances of having a shallow lake closed to the sea (which affects water quality);

d. Managing land inundation (including from wind effects);

e. Managing effects of high lake levels on waterway networks and infrastructure;

f. Tuna/eel migration in April-June, using kōumu drains or a full opening;

g. Facilitating tuna/eel, patiki/flounder, inanga/whitebait, sea run trout and other species entering the lake in September/October;

h. Access for traditional mahinga kai including gathering of swan's eggs; and

i. Whether there should be a level or levels at which inundation of adjacent land and/or effects on waterway networks and infrastructure become the primary consideration for the lake to be opened to the sea

Advice note: For the avoidance of doubt, this condition does not fetter the discretion of the consent holders to choose whether and when to exercise the resource consents to artificially open and close the Lake.

9. The consent holders shall develop the Lake Protocol in consultation with representatives from the following:

a. Te Taumutu Rūnanga;

b. Department of Conservation;

c. Lake Settlers' Association;

d. Waihora Ellesmere Trust;

e. North Canterbury Fish and Game Council;

f. Lake Ellesmere Commercial Fishermen's Association;

g. Selwyn District Council; and

h. Christchurch City Council.

Advice note: For the avoidance of doubt, this condition does not fetter the discretion of the consent holders to choose whether and when to exercise the resource consents to artificially open and close the Lake.

10. Consultation to develop the Lake Protocol shall occur by 31 March 2014.

11. The consent holders shall submit a final copy of the Lake Protocol to the Canterbury Regional Council Attention: RMA: Enforcement and Compliance Manager by 30 April 2014.

12. The Lake Protocol shall be reviewed at intervals of not less than five years for the term of these consents, and Conditions 7-9 and 11 above shall also apply to those reviews.

13. The consent holder shall erect signage at the Taumutu and Timber Yard boat ramps and in a location visible to the public accessing the areas (at or about map reference NZTopo50 BY23:497-442) at Taumutu advising the public of the works and place appropriate signage at the entrance to the opening or closing site when works are occurring to either artificially open or close the Lake.

14. In the event of any complaints of noise from nearby residents, the consent holders shall, within 24 hours, arrange for a noise assessment to be undertaken at the notional boundary of the complainant's dwelling. Should the noise from the works be found to exceed the district plan provisions for noise as a permitted activity at the notional boundary of the complainant's dwelling, the consent holders shall institute an appropriate means, approved by the Christchurch City Council's authorised enforcement officer, of mitigating this effect unless the authorised officer is satisfied that no such means is necessary or appropriate.

15. The consent holders must use all practicable measures to ensure that any works on Kaitorete Spit do not disturb birds which are nesting or rearing their young.

16. Works at the opening site shall not cause the stranding of fish in pools or channels unless specifically for the creation of kōumu for customary harvest.

17. The consent holders must use their best endeavours to ensure that any earthworks for the purpose of assisting fish migration do not encroach on any any wāhi tapu or wāhi taonga site, or any historic or cultural site listed in Appendix 5 of the Selwyn District Plan (2008), or any site listed in Appendix VI of the Banks Peninsula District Plan (2012), or disturb any plant species listed in Appendix E3 or Appendix E14 of the Selwyn District Plan (2008).

18. In the event of disturbance of Koiwi Tangata (human bones) or taonga (treasured artefacts), the consent holder shall immediately:

    a. Advise the Canterbury Regional Council of the disturbance;

    b. Advise the Upoki Rūnanga of Te Taumutu Rūnanga, or their representative;

    c. Advise the New Zealand Historic Places Trust of the disturbance;

    d. Cease earthmoving operations in the affected area until an area has been marked off around the site, and Kaumatua and archaeologists have given approval for the earthmoving to recommence.

    Every driver of earthmoving machinery used at the site shall be advised of this procedure in writing.

    Advice note: This condition is in addition to any agreements that are in place between the consent holders and the Opoko Rūnanga (Cultural Site Accidental Discovery Protocol) or the New Zealand Historic Places Trust.

19. To prevent the spread of pest species, the consent holder shall ensure that activities authorised by this consent are undertaken in accordance with the Biosecurity New Zealand's hygiene procedures and that machinery shall be free of plants and plant seeds prior to use in the riverbed.

Advice Note: You can access the most current version of these procedures from the Biosecurity New Zealand website http://www.biosecurity.govt.nz.Refuelling and servicing of machinery.

20. Any work area used for refuelling machinery at the Lake opening site shall have an appropriate spill procedure in place to ensure that, in the event of a fuel spill, there is no discharge of fuel to the Lake or to coastal waters.

    a. There shall be no refuelling within 20 metres of the Lake.

    b. The pump shall be attended at all times during refuelling;

    c. Refuelling shall only be undertaken using:

        i. Double skinned tanks with a maximum total storage capacity of 3600 litres and an electric pump contained inside the tanks' outer skin; and

        ii. double skinned hose lines with transparent outer skins and auto shut off nozzles.

    d. A "spill mat" capable of absorbing oil and petroleum products, and of a minimum size of 1.5 metres by 1.5 metres, shall be positioned under the fill point of all refuelling and servicing machinery contained on site in order to intercept any spill from the nozzle.

    e. The "spill mat" detailed in clause (d) shall be replaced following the absorbance of spills with a cumulative volume of 10 litres or more or if otherwise damaged to such a state that it can no longer adequately intercept and absorb any spills.

    f. A spill kit, that is capable of absorbing the quantity of oil and petroleum products that may be spilt on site at any one time, shall be kept on site at all times.

    g. A written spill response plan ("the plan") shall be developed and communicated to all persons undertaking activities authorised by this consent and a copy kept on site at all times. The plan shall detail the methods and processes to be used by the consent holder to clean up a spill and shall include, but not be limited to:

        i. emergency contact information for the Canterbury Regional Council Pollution Hotline;

        ii. emergency contact information for a waste management service provider with appropriate qualifications and equipment for cleaning up spills of oil and petroleum products;

        iii. instructions for operating the spill kit kept on site in accordance with clause (f); and

        iv. instructions for removing and disposing of contaminated material in a manner suitable to ensure no further contamination occurs.

    h. The spill response plan specified in clause (g) shall be provided to Canterbury Regional Council attention RMA Compliance and Enforcement Manager eight

working days prior to any refuelling activities occurring on Kaitorete Spit and/or upon request by Canterbury Regional Council.

i. In the event that a leak in the inner or outer hose or tank skin is detected, the consent holders shall immediately take action to prevent any further leakage and shall remove the damaged unit from the bed until such time as the leak is repaired.

j. In the event of a spill of fuel or any other contaminant, the consent holder shall clean up the spill as soon as practicable in accordance with the spill response plan detailed in clause (g) and take measures to prevent a recurrence.

k. In the event of a spill, the consent holder shall inform the Canterbury Regional Council, Attention: Pollution Hotline of the event:

i. as soon as practicable, and not later than six hours following the spill, if the spill is within 20 metres of flowing water and/or is of 10 litres or more; or

ii. as soon as practicable, and not later than 24 hours following the spill, if the spill is greater than 20 metres from flowing water and is of less than 10 litres.

l. When informing the Canterbury Regional Council of any spill, as specified in clause (k), the consent holders shall provide the following information:

i. the date, time, location and estimated volume of the spill;

ii. the cause of the spill;

iii. the type of contaminant(s) spilt;

iv. clean up procedures undertaken;

v. details of the steps taken to control and remediate the effects of the spill on the receiving environment;

vi. an assessment of any potential effects of the spill; and

vii. measures to be undertaken to prevent a recurrence.

21. Monitoring of the time, levels and duration of each Lake opening and any attempt at artificial Lake closure shall be undertaken by the consent holders and reported by 30 June each year for the term of these consents to: Te Rūnanga o Ngāi Tahu, the Canterbury Regional Council (Attention: RMA Compliance and Enforcement Manager), Christchurch City Council (Attention: Manager Resource Consents) and Selwyn District Council (Attention: Planning Manager).

22. Monitoring of the effects of the Lake opening works on the rate of coastal erosion at the opening site shall be undertaken by the consent holders and reported by 30 June each year for the term of these consents to Te Rūnanga o Ngāi Tahu and the

Canterbury Regional Council (Attention: RMA Compliance and Enforcement Manager).

23. The consent holders shall undertake investigation works listed in **Schedule 1**, attached to this consent, for the purpose of assessing the effects and effectiveness of artificially opening the Lake to the sea.

24. The outputs identified in **Schedule 1** shall be submitted to Canterbury Regional Council (Attention: RMA Compliance and Enforcement Manager), Christchurch City Council (Attention: Manager Resource Consents) and Selwyn District Council (Attention: Planning Manager) within ten working days of the completion of each output.

25. The outputs identified in Schedule 1 shall be made available publicly, including on the Canterbury Regional Council's website.

26. The Consent Authority may, once per year on any of the last five working days of November, serve notice on the consent holders of its intention to review the conditions of consent for the following purposes:

    a. To address any adverse effect on the environment which may arise from the exercise of the consent and which is appropriate to address at a later date;

    b. To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment, including but not limited to effects associated with increased coastal erosion as a result of opening the Lake;

    c. To deal with inaccuracies contained in the consent application that materially influenced the decision made on the application and which is such that additional conditions are necessary to avoid, remedy or mitigate the effects of the activity; or

    d. To assess the appropriateness of compliance standards, monitoring parameters and frequencies and to alter these if necessary to better manage the actual or potential adverse effects of the activity.

Schedule 1 – Investigations into the Effects and Effectiveness of Lake Openings

1. Opening at Te Kōrua

Objective:

To determine whether Te Waihora/Lake Ellesmere (the Lake) can be successfully opened to the sea at the traditional Ngāi Tahu opening site at Te Kōrua.

Strategy:

a) Assess the need for dredging of the Lake around Te Kōrua to get sufficient hydraulic head for successful opening at Te Kōrua.

b) Assess any likely lake shore or coastal erosion if Lake opened at Te Kōrua.

Output:

a) One report to be completed by **30 June 2015**.

2. Channel Dredging

Objective:

To determine whether dredging the deeper channels in the Lake will result in a greater flush when the Lake is opened and by doing so improve water quality.

Strategy:

a) Identification and mapping of deeper channels.

b) Sampling of bed sediment.

c) Estimating volumes of sediment and methods for dredging deeper channels.

Outputs:

a) A map of lake depths in Te Kōrua and the south-west corner of the Lake to be completed by **30 June 2015**.

b) One report assessing the feasibility and potential methodology and effectiveness of deep channel dredging to be completed by **30 June 2016**.

3. Summer Lake Levels

Objective:

To evaluate options for the management of lake levels and openings to reduce effects of having a shallow lake, at high temperatures over the summer period of December to February (inclusive) on water quality and cultural, recreational, ecological and amenity values.

Strategy:

a) Assess the effects on land inundation of holding the lake to higher levels before opening in summer months.

b) Assess the effects of prolonging the lake opening period over these months on water quality and associated ecological, cultural and recreational values.

c) Undertake earthworks to assess whether the lake opening can be maintained when the lake level has dropped below a desirable level.

Outputs:

a) One proposal identifying a methodology by **30 June 2014.**

b) One report assessing feasibility and likely effects of these objectives by **30 June 2015**.

4. Lake Closure Investigation

Objectives:

a) To assess the feasibility and effectiveness of making smaller cuts when opening the Lake to establish if natural processes will close the Lake at a higher level than currently occurs.

b) To ascertain if this technique could be used to lower lake levels to prevent land inundation in winter or utilised to assist fish passage and migration at other times of the year, while keeping lake levels high enough to allow a spring opening for fish migration.

Strategy:

a) Investigate the cost and feasibility of making smaller lake opening(s) with the express view of having a natural closure at a higher level.

Outputs:

a) One proposal identifying a possible methodology by **31 January 2014**.

b) One report assessing feasibility and likely effects of these objectives by **30 June 2015**.

CRC140371 To dam water at the opening/closing site of Te Waihora/Lake Ellesmere.

1. The damming or impoundment of water shall only occur at Te Waihora/Lake Ellesmere "the Lake", between map references NZTopo50 BY23:496-438 and BY23:503-439 as a result of the artificial closure of the Lake to the sea as authorised by consents CRC140366, CRC140368, RC135361 and RMA92023020.

2. The Consent Authority may, once per year on any of the last five working days of November, serve notice on the consent holders of its intention to review the conditions of consent for the following purposes:

    a. To address any adverse effect on the environment which may arise from the exercise of the consent and which is appropriate to address at a later date;

    b. To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment;

    c. To deal with inaccuracies contained in the consent application that materially influenced the decision made on the application and which is such that additional conditions are necessary to avoid, remedy or mitigate the effects of the activity; or

    d. To assess the appropriateness of compliance standards, monitoring parameters and frequencies and to alter these if necessary to better manage the actual or potential adverse effects of the activity.

CRC140367 To divert water, to discharge water to water, to discharge water, contaminants and sediment into the ocean at the opening/closing site of Te Waihora/Lake Ellesmere.

1. The discharge in terms of this permit shall only be water, sediment and contaminants associated with the opening of Te Waihora/Lake Ellesmere (the Lake) to the Coastal Marine Area (CMA) and all ancillary earthworks and investigations as authorised by resource consents CRC140366, CRC140368, CRC140371, RC135361 and RMA92023020.

2. The discharge, in accordance with Condition 1, shall only be to:

    a. The CMA; and

    b. Te Waihora / Lake Ellesmere.

    located between map references NZTopo50 BY23:496-438 and BY23:503-439.

3. Monitoring of the time and date, levels and duration of each Lake opening and any attempt at artificial Lake closure shall be undertaken by the consent holders and be reported by 30 June each year for the term of these consents to:

a. Te Rūnanga o Ngāi Tahu;

b. Canterbury Regional Council (Attention: RMA Compliance and Enforcement Manager);

c. Christchurch City Council (Attention: Manager Resource Consents; and

d. Selwyn District Council (Attention: Planning Manager).

4. The consent holder shall undertake monthly in-lake water quality monitoring for:

a. E-coli;

b. Suspended sediment;

c. Conductivity;

d. Chlorophyll;

e. Temperature; and

f. Salinity.

5. By 30 June each year for the term of these consents the consent holders shall report the results of the in-lake water quality monitoring to:

a. Te Rūnanga o Ngāi Tahu;

b. Canterbury Regional Council (Attention: RMA Compliance and Enforcement Manager);

c. Christchurch City Council (Attention: Manager Resource Consents; and

d. Selwyn District Council (Attention: Planning Manager).

6. Before 30 June 2014, the consent holders shall prepare a detailed programme for monitoring the effects of the discharge on ecosystems in coastal waters and provide this to the Canterbury Regional Council (RMA Compliance and Enforcement Manager) for approval.

7. As far as practicable, the consent holders shall undertake off-shore water quality monitoring at least four times per year at the following sites:

Site Description	Site ID	Easting	Northing
Entrance to French Bay (Akaroa)	SQ35189	2505925	5711177
Akaroa Heads	SQ32738	2507200	5701400
200m offshore, Birdlings Flat	SQ35190	2486102	5708702

from Birdlings Township			
200m offshore, Kaitorete Spit	SQ35191	2462658	5705812
3km offshore in Canterbury Bight Birdlings/Kaitorete	SQ35199	2474473	5704731
200m offshore, 2km north of the Rakaia River	SQ35192	2450385	5702117
200m offshore, between Rakaia and Ashburton Rivers	SQ35193	2431440	5693349
3km offshore between Rakaia and Ashburton Rivers from Rakaia/Ashburton site	SQ35200	2431717	5690292

8. Results of the off-shore monitoring shall be reported by 30 June each year for the term of these consents to:

   a. Te Rūnanga o Ngāi Tahu;

   b. Canterbury Regional Council (Attention: RMA Compliance and Enforcement Manager);

   c. Christchurch City Council (Attention: Manager Resource Consents; and

   d. Selwyn District Council (Attention: Planning Manager).

9. The Consent Authority may, once per year on any of the last five working days of November, serve notice on the Consent Holder of its intention to review the conditions of consent for the following purposes:

   a. To address any adverse effect on the environment which may arise from the exercise of the consent and which is appropriate to address at a later date;

b. To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment, including but not limited to effects associated with increased coastal erosion as a result of opening the Lake;

c. To deal with inaccuracies contained in the consent application that materially influenced the decision made on the application and which is such that additional conditions are necessary to avoid, remedy or mitigate the effects of the activity; or

d. To assess the appropriateness of compliance standards, monitoring parameters and frequencies and to alter these if necessary to better manage the actual or potential adverse effects of the activity.

CRC140367 To discharge water to water, to discharge water, contaminants and sediment into the ocean at the opening/closing site of Te Waihora/Lake Ellesmere.

1. The discharge in terms of this permit shall only be water, sediment and contaminants associated with the opening of Te Waihora/Lake Ellesmere (the Lake) to the coastal marine area and all ancillary earthworks and investigations as authorised by resource consents CRC140366, CRC140368, CRC140371, RC135361 and RMA92023020.

2. The discharge, in accordance with Condition 1, shall only be to:

   a. The CMA; and

   b. Te Waihora / Lake Ellesmere.

   located between map references NZTopo50 BY23:496-438 and BY23:503-439.

3. Monitoring of the time and date, levels and duration of each Lake opening and any attempt at artificial Lake closure shall be undertaken by the consent holders and reported each year, before 30 June, to:

   a. Te Rūnanga o Ngāi Tahu; and

   b. Canterbury Regional Council (Attention: RMA Compliance and Enforcement Manager);

   c. Christchurch City Council (Attention: Manager Resource Consents;

   d. Selwyn District Council (Attention: Planning Manager).

4. The consent holder shall undertake monthly in-lake water quality monitoring for:

   a. E-coli;

   b. Suspended sediment;

c. Conductivity;

d. Chlorophyll;

e. Temperature; and

f. Salinity.

5. Prior to 30 June each year, the consent holder shall report the results of the in-lake water quality monitoring to Te Rūnanga o Ngāi Tahu, the Canterbury Regional Council (Attention: RMA Compliance and Enforcement Manager), Christchurch City Council (Attention: Manager Resource Consents) and Selwyn District Council (Attention: Planning Manager).

6. Before 30 June 2014, the consent holder shall prepare a detailed programme for monitoring the effects of the discharge on ecosystems in coastal waters and provide this to the Canterbury Regional Council (RMA Compliance and Enforcement Manager) for approval.

7. As far as practicable, the consent holder shall undertake off-shore water quality monitoring at least four times per year at the following sites:

Site Description	Site ID	Easting	Northing
Entrance to French Bay (Akaroa)	SQ35189	2505925	5711177
Akaroa Heads	SQ32738	2507200	5701400
200m offshore, Birdlings Flat from Birdlings Township	SQ35190	2486102	5708702
200m offshore, Kaitorete Spit	SQ35191	2462658	5705812
3km offshore in Canterbury Bight Birdlings/Kaitorete	SQ35199	2474473	5704731
200m offshore, 2km north of the Rakaia River	SQ35192	2450385	5702117
200m offshore, between Rakaia and Ashburton Rivers	SQ35193	2431440	5693349

3km offshore between Rakaia and Ashburton Rivers from Rakaia/Ashburton site	SQ35200	2431717	5690292

8. Results of the off-shore monitoring shall be reported each year, before 30 June, to Te Rūnanga o Ngāi Tahu, the Canterbury Regional Council (Attention RMA Compliance and Enforcement Manager), Christchurch City Council (Attention: Manager Resource Consents) and Selwyn District Council (Attention: Planning Manager).

9. The Consent Authority may, once per year on any of the last five working days of November, serve notice on the Consent Holder of its intention to review the conditions of consent for the following purposes:

   a. To address any adverse effect on the environment which may arise from the exercise of the consent and which is appropriate to address at a later date;

   b. To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment, including but not limited to effects associated with increased coastal erosion as a result of opening the Lake;

   c. To deal with inaccuracies contained in the consent application that materially influenced the decision made on the application and which is such that additional conditions are necessary to avoid, remedy or mitigate the effects of the activity; and

   d. To assess the appropriateness of compliance standards, monitoring parameters and frequencies and to alter these if necessary to better manage the actual or potential adverse effects of the activity.

CRC142019 To use land to temporarily store fuel at the opening/closing site of Te Waihora/Lake Ellesmere

RMA 92023808 To use land to temporarily store fuel at the opening/closing site of Te Waihora/Lake Ellesmere

1. The land use shall be for the use and storage of diesel in above ground containers, at a site located at Kaiterete Spit, Taumutu between map reference NZTopo50 BY23:496-438 and BY23:503-439, as shown on plan CRC142019A which forms part of this consent.

2. The above ground containers shall have a total capacity not exceeding 3,600 litres

3. There shall be no storage of fuel within 20 metres of the bed of the Lake.

4. The storage of fuel shall not occur for more than 90 continuous days.

5. Any re-fuelling shall take place such that any spills or overflow shall be contained and not released into the environment.

6. If an accidental spill occurs, it shall be cleaned up immediately as practicable.

7 A spill kit appropriate for the substance used and stored on site shall be maintained on the site.

8. In the event of an accidental spill of a hazardous substance, with a volume greater than 10 litres, the consent holder shall inform the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, within 24 hours of a spill event and shall provide the following information:

    a. Date, time, location and estimated volume of the spill;

    b. The cause of the spill;

    c. The type of hazardous substance(s) spilled;

    d. Clean up procedures undertaken;

    e. Details of the steps undertaken to control and remediate the effects of the spill on the receiving environment; and

    f. Measures undertaken to prevent a recurrence

Environment Canterbury Regional Council
Kaunihera Taiao ki Waitaha

Plan, CRC140368

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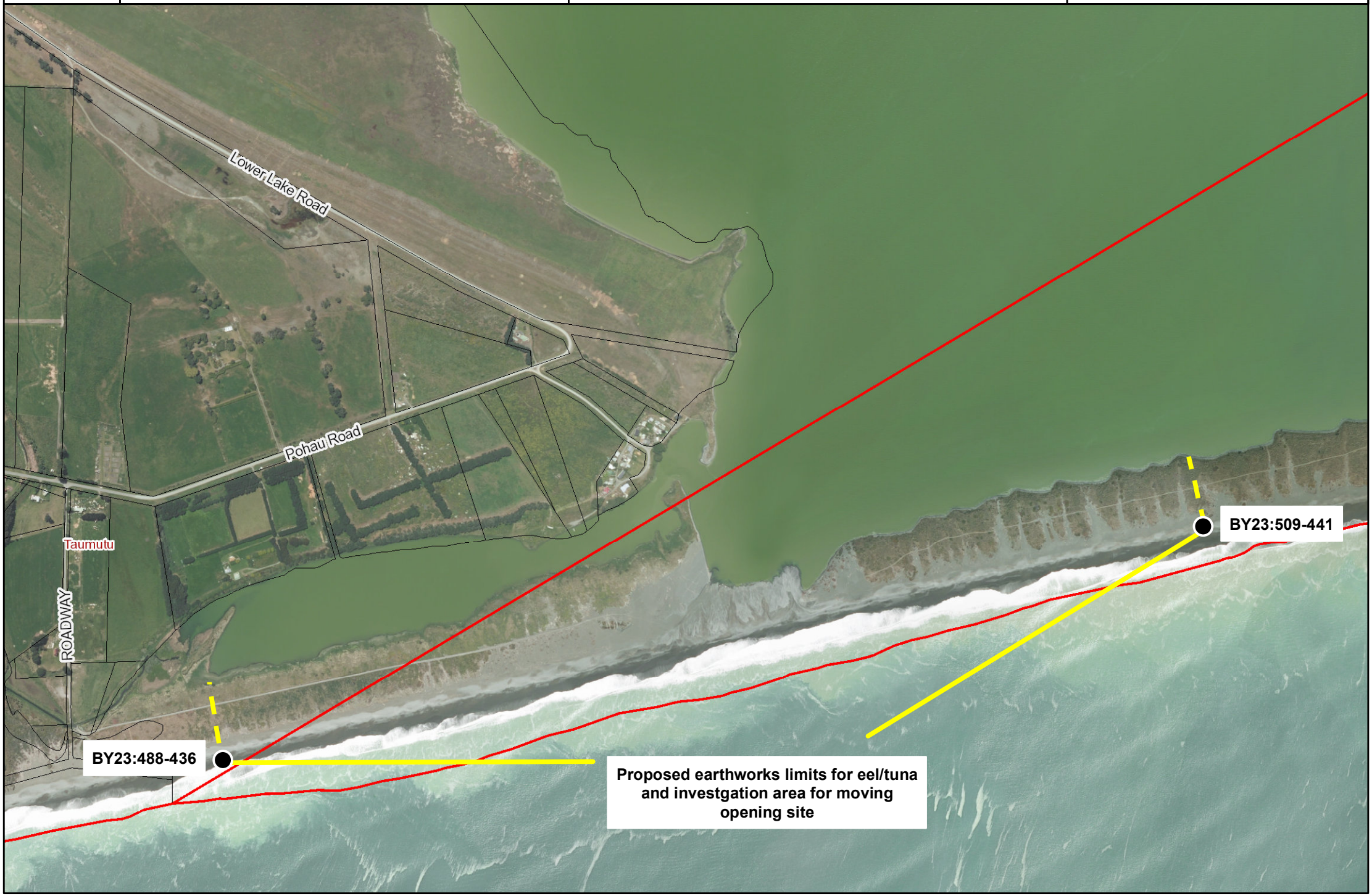
Scale: 1:10,000 @A4

Map Created by Environment Canterbury on



Environment Canterbury Regional Council
Kaunihera Taiao ki Waitaha

Plan, CRC142019A

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