From:	Will Nicolson				
To:	Natasha Pritchard				
Cc:	Tony Jack				
Subject:	RE: Further information request - RM18.004				
Date:	Thursday, 29 July 2021 12:26:33 p.m.				
Attachments:	image001.p.nq image005.p.nq image005.pnq image007.jpq image008.pnq				
	imaae009.jpg imaae012.jpg imaae013.png imaae014.png 20210629 17367 Pioneer Energy Ltd s92 response final.pdf				

Hi Natasha,

Please find attached our responses to your further information request. Let me know if you're in need of anything else.

Regards, Will

Will Nicolson

Scientist/Resource Management Planner



13 Pinot Noir Drive Cromwell 9342 New Zealand

New Plymouth | Cromwell | Gore

landpro.co.nz



From: Natasha Pritchard <natasha.pritchard@orc.govt.nz> Sent: Friday, 9 July 2021 5:56 PM To: Will Nicolson <will@landpro.co.nz> Cc: Tony Jack <tony.jack@pioneerenergy.co.nz> Subject: RE: Further information request - RM18.004

Hi Will,

Thank you for this update.

I am out of the office from Tuesday next week until Monday 26 July (training and school holidays) and will not be checking emails and working over that period. You may wish to take the extra time and lodge the further information on Friday 23 July on that basis. Realistically, I will unlikely get much of a chance during that first week back to work on this but I will get a draft s95 to you during the first week of August. Apologies for the delay with this.

Have a relaxing weekend.

Kind regards, Natasha

From: Will Nicolson <will@landpro.co.nz>
Sent: Friday, 9 July 2021 3:55 p.m.
To: Natasha Pritchard <<u>natasha.pritchard@orc.govt.nz</u>>
Cc: Tony Jack <<u>tony.jack@pioneerenergy.co.nz</u>>
Subject: RE: Further information request - RM18.004

Hi Natasha,

With regards to your latest s92 request, I can confirm that the applicant agrees to a timeframe extension until the further information is provided. I'm hoping to get this back to you by mid-next week.

Cheers, Will

Will Nicolson

Scientist/Resource Management Planner





From: Natasha Pritchard <<u>natasha.pritchard@orc.govt.nz</u>> Sent: Tuesday, 6 July 2021 11:43 AM To: Will Nicolson <<u>will@landpro.co.nz</u>> Cc: Tony Jack <<u>tony.jack@pioneerenergy.co.nz</u>> Subject: Further information request - RM18.004

Hi Will,

Please find attached a letter requesting further information for RM18.004. Please let me know if you have any questions or would like a hard copy sent out

The costs to date for the processing of your application are \$12,073. This excludes the deposit. These costs may not yet include all work completed on your application to date. The work still to be completed on your application includes preparing the notification report, conditions and decision report. I will continue to monitor the costs of your application and I will update you on the costs of your application at the next processing stage for your consent. If you would like another update on costs before then please let me know. I understand an interim invoice may be sent out shortly.

Further information on consent costs can also be found on our website: https://www.orc.govt.nz/consents-and-compliance/ready-to-apply-for-a-consent/fees-and-charges/fees-and-charges-faqs

If you have any questions about the further information please let me know.

Kā mihi Natasha



PRINCIPAL CONSENTS OFFICER

P 0800 474 082 | M 027 228 2072 natasha.pritchard@orc.govt.nz www.orc.govt.nz

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29 July 2021

Landpro Reference: 17367 Council Reference: RM18.004 / A1499329

Otago Regional Council 70 Stafford Street **Dunedin, 9054**

Dear Natasha,

Re: Request for further information under Section 92(1) of the Resource Management Act 1991 – application to amend water permits 2001.475 & 2001.476.

In reference to your request for further information dated 6 July 2021, please find outlined below our responses to this request.

Land ownership

(1) Confirmation of the legal parcels at the dam structure and the Lake Onslow lake bed including the lake boundary at fullest flow. If any land is managed by the Crown (including marginal strip), state who manages this land on behalf of the Crown, if known.

Land ownership in relation to Lake Onslow is shown in the below figures and summarised in Table 1. The highlighted (yellow) area in the figures does not have an assigned "owner" and is labelled as "Original Lake Onslow" – our understanding is that this roughly corresponds to the impounded area (plus some of the downstream Teviot River) of the original Lake Onslow dam, which was flooded in the 1980s (see Appendix A for associated gazette notice authorising the new dam and associated works). We are unsure who manages this land, however as the proposal would not have any effect on this area of the lake (being smaller than the minimum lake extent that could occur under Pioneer's existing consent obligations), there would be no impact on this manager (if there is one).

The remainder of the presently impounded area, and the new dam itself, is predominantly made up of land owned by either Pioneer Energy Ltd or Central Electric Ltd, with a small portion between the old impounded extent and the new being made up of Crown land (marginal strip), which LINZ has indicated is managed by DOC, and Crown land formerly leased to Beaumont Station Limited (Sections 32 & 34 SO 22593). Again, it is unlikely that these Crown-owned parcels will be affected by the proposal, particularly given there is no proposed change to the lake level operating range as dictated by current consents.

Appellation	Owner	Notes		
Various	Pioneer Energy Ltd	These parcels generally occupy the "new"		
		impounded areas between the old Lake		
		Onslow (pre-1980s) and the new shoreline at		
		maximum impoundment.		
Section 37 SO 22593	Central Electric Ltd	These parcels occupy the "new" impounded		
Section 38 SO 22593		areas between the old Lake Onslow (pre-		
		1980s) and the new shoreline at maximum		
		impoundment.		
Section 32 SO 22593	Beaumont Station	Pioneer has indicated that Beaumont Station		
Section 34 SO 22593	Ltd (Surrender of	was to be compensated for the flooding of		
	within Lease)	these leasehold properties due to the Onslow		
		damming activities. Some paperwork to this		
		effect has been provided to you via Tony Jack		
		(email dated 6/7/2021; Appendix B).		
		Instrument No. 788865.3 of Record of Title		
		OT338/21 states that Sections 32 and 34 SO		
		22593 were surrendered from within the		
		Lease in 1991 (Appendix B). These sections are		
		also not included on the latest (2009) Crown		
		Pastoral Land Tenure Review Land Status		
		Report for Beaumont Station.		
Crown Land (Marginal	Crown	LINZ has confirmed that they do not manage		
Strip)		this land, and suggested that it is most likely		
		DOC-administered land. DOC advised that we		
		defer to LINZ on who manages the land,		
		therefore we assume that DOC "manages"		
		these parcels.		
Original Lake Onslow	N/A	Parcel ID: 3166426. Intent unknown, but		
		assumed designated legal parcel for the		
		original impounded area of the old Onslow		
		dam.		

Table 1: Legal parcels relevant to the proposal



Figure 1: Land ownership in relation to Lake Onslow. The highlighted yellow parcel is Original Lake Onslow (no owner). In the bottom left image, the parcels directly to either side of the yellow parcel are Crown land (marginal strip) (Source: GRIP)

Pioneer has confirmed that those parcels owned by Pioneer around the periphery of Lake Onslow correspond to the "New Lake Shoreline" as indicated in the relevant survey plans (see below image).



Figure 2: Appellations relevant to the application (Source: Pioneer Energy Ltd). The dark blue parcels are those owned by Pioneer Energy, and roughly correspond to the "new" lake shoreline.

(2) Please provide an assessment as to whether the change in the rate of lake drawdown will have any environmental effects on land not owned by the Applicant.

While the proposal seeks to alter the rate of drawdown, it does not seek to alter the operating range of the lake – meaning the minimum and maximum lake levels should not be significantly impacted. Given that Beaumont Station appear to have surrendered their pastoral leasehold over the inundated parcels (Sections 32 & 34 SO 22593), it is assumed that the Crown has reverted to managing these parcels. There is no indication that the proposal would have any effect on the Crown's management of these parcels compared to the status quo under existing consents.

As discussed above, LINZ has indicated that DOC are probably responsible for administering the Crown marginal strips within the impounded area. While consultation with DOC regarding effects of the proposal on aquatic ecology in particular is ongoing, it is not considered that the proposal would have an adverse effect on DOC's administration of these legal parcels, nor that any significant adverse environmental effects would occur within these parcels due to the proposal.

The design of the proposed consent conditions and associated Lake Onslow Monitoring Proposal (LOMP) is such that any environmental effects will be captured as part of the monitoring process, therefore seeking to determine environmental effects on land not owned by the applicant at this stage is not considered a particularly worthwhile exercise.

Consent conditions and site visit

(3) Confirmation of whether the new suite of conditions proposed in the amendment Application is to be added to both of the consents proposed to be varied (Water Permit 2001.475 and Water Permit 2001.476.V1) or just one of them (or are a mixture of conditions proposed to be added to each consent).

The new suite of conditions is proposed to be added to both consents, as the existing condition of consent regarding drawdown, which is the subject of the change request, is on both 2001.475 and 2001.476. Were Council to consider it more efficient or appropriate to, for example, impose the full suite of new conditions on the water take permit and just the amended drawdown condition on the discharge permit, the applicant would be amenable to considering that approach as well.

(4) Commentary on the new suite of conditions proposed as background to why these amendments are proposed. What are these conditions seeking to avoid, remedy, mitigate? How does this change any of the original assessment made for the Application? Does the applicant seek to update their original assessment? Outline the reasons why specific conditions are proposed (e.g. new monitoring condition)?

We consider that the assessment of effects provided in the original application (dated January 9, 2018) remains accurate, with the subsequent Section 92 responses provided by Ross Dungey on April 5th and August 17th, 2018 further reinforcing that initial effects assessment. The condensed version of these assessments was that there is no evidence to suggest that increasing the

drawdown rate would adversely impact invertebrate production in the lake¹, no indication that macrophyte distribution or dynamics will be adversely impacted², and no indication that there would be a significant detrimental impact on downstream hydrology³ or ecology⁴ of the Teviot River. The various reports and s92 responses provided by Mr Dungey to Council also address other matters pertaining to potential environmental effects from the proposal, and the general consensus is that the effects are not expected to be more than minor. To our knowledge, there is nothing that has come to light in the intervening ~3 years to suggest that these assessments of effects are inaccurate or misleading.

Despite this, during consultation with potentially affected parties (namely DOC, Fish & Game, and Aukaha) it was determined that monitoring during the early stages of the amended consent(s) would provide a scientifically sound means of verifying these initial effects assessments, and would thereby help in alleviating stakeholder concerns. The proposed consent conditions subsequently lodged with Council on June 21st 2021 are primarily designed to ensure the applicant complies with its obligations to undertake this monitoring (Condition A1), to assess and report on the extent of any ecological effects associated with the increased drawdown highlighted by the monitoring (Condition A2), seeking input from Fish & Game, DOC and Aukaha on this new effects assessment (Condition A3), and reverting back to the current drawdown rate (0.2 m/week) if the effects of the increased drawdown are shown to be more than minor (Condition B2).

Condition B1 has been proposed to enable the increased drawdown sought (0.4 m/week). The application originally sought 0.5 m/week as an amended rate of consented drawdown, however the applicant chose to reduce this rate to 0.4 m/week as a compromise in order to address concerns raised by Fish & Game during consultation.

Condition C has been proposed in order to provide accurate lake level monitoring to support the gathering of environmental data as described above, and to ensure the applicant is complying with the consented maximum drawdown rate. It is noted that there is presently no requirement

³ Dungey s92 response 5/4/2018, Potential Effects (6)

¹ Application AEE, Section 6 para 9; Dungey s92 response 17/8/2018, question 1 para 2.

² Dungey s92 response 17/8/2018, question 2 and 3 paras 1.

⁴ Dungey s92 response 5/4/2018, Potential Effects (1)

for the applicant to monitor lake levels under Consents 2001.475-476, so this proposed condition is a positive change from a compliance perspective.

(5) Confirmation that no unconditional written approvals have been lodged in relation to this application since lodgement of the Application in January 2018.

No unconditional written approvals have yet been obtained with regards to the application.

- (6) Due to the inability to visit the site, please provide any photographs, drone footage, aerials or similar that show the following key locations and any maps or similar that can show the extent of lake edge that would change at different locations around the lake between a 0.2 and 0.4 m per week drawdown rate:
 - a. At the dam
 - b. Boat ramp
 - c. Key fishing/mahika kai access locations
 - d. Wetlands
 - e. Teviot River below the discharge/dam.

Once again, it is important to stress that the *extent* of lake edge would not change due to the proposal – there is no proposed change to the minimum operating range, nor the maximum rate of discharge from the dam. The below photos have been provided to show (where possible/documented) the aesthetic difference between comparatively high lake levels and comparatively low lake levels – however these should not be construed to indicate the likely "effects" of the increased drawdown, due to the reasoning provided above. All photos have been provided by the applicant.



Figure 3: Lake Onslow Dam at high lake levels (left) and lake levels 4.35 m below crest (right)



Figure 4: Onslow dam with lake levels close to capacity (left) and 2-2.5 m below crest (right)



Figure 5: Lake Onslow boat ramp at moderate-high lake levels (left) and moderate-low lake levels (right)



Figure 6: Onslow dam and outlets at relatively full lake levels (left) and lake levels 4.35 m below crest (right)



Figure 7: Teviot River directly downstream from Onslow Dam (left) and from approx. 50 m downstream from dam (right)

Tony Jack (Pioneer Energy) provided full-size copies of these photos, along with others, to Natasha Pritchard via email on 6/7/2021. The photos show various views of Lake Onslow, from both ground-based and aerial (oblique) sources – however key fishing and mahika kai locations are not known at this stage, and photos of the key wetland areas associated with Onslow are not on file, primarily due to a lack of access. The applicant is currently not in possession of high-resolution aerial photography for Onslow, however publicly-available aerial imagery provides a good indication of regionally significant wetland extent and nature (see figure below).



Figure 8: Middle Swamp (left) & Fortification Creek Wetland Management Area (right) (Source: ORC GIS)

Assessment of effects of the variation

(7) Provide an assessment of the proposal in relation to cultural effects. Please provide a summary of any direct consultation with iwi regarding the proposal and an outline of any feedback from this consultation. Please provide a specific assessment of the effects of the proposal on waahi taoka and mahika kai values associated with Lake Onslow and the Teviot River.

Aukaha were first involved in the application prior to lodgement, back in 2017, and from then on as the application progressed. They have provided comment on an earlier iteration of amendments to the proposal (draft consent conditions and LOMP), and the applicant has sought to accommodate these comments in the application where possible (note the applicant has also provided a copy of the final version of the proposed consent conditions and LOMP to Aukaha). A brief summary of Aukaha concerns raised/changes sought to date is provided in the below table, along with the applicant's response and whether or not these have been integrated into the application.

Summary of change suggested (Aukaha)	Affects	Applicant position	Comment from applicant
Consideration of	LOMP only	Change	Condition A2(b) ("and any other relevant data
water quality		accepted	available") addresses consideration of publicly
			available water quality data. The LOMP states that
			"LAWA water quality data will be referred to in the
			reporting of the monitoring results."
Addition of	Conditions	Discussions	Further discussion is needed to determine the
opportunity for	only	ongoing –	scope of this cultural monitoring, the costs, and
cultural monitoring		not included	who would be expected to support those costs. A
		in notified	side-agreement (outside of consent conditions)
		application	between the applicant and Aukaha regarding the
			monitoring sought may be more appropriate.

Table 2: Summary of consultation with Aukaha

The following Kai Tahu values are identified for Lake Onslow in Schedule 1D of the RPW:

- Waahi taoka treasured resource; values, sites and resources that are valued and reinforce the special relationship Kai Tahu have with Otago's water resources.
- Mahika kai places where food is procured or produced. Examples in the case of waterborne mahika kai include eels, whitebait, kanakana (lamprey), kokopu (galaxiid species), koura (fresh water crayfish), fresh water mussels, indigenous waterfowl, watercress and raupo.

With regards to Waahi taoka, the applicant is not aware of any sites of special significance to iwi that may be affected by the increased drawdown proposal. Additionally, there are no such sites of significance identified in the Ngai Tahu Atlas⁵. We do note, however, that there are several sites of archaeological interest/significance shown on Archsite⁶, a screenshot of which is reproduced below. The details of each of these sites shown on Archsite is unknown, with the exception of the single site in the lake interior (discussed below), however it is acknowledged that Council may have access to records relating to these sites.



Figure 9: Archsite listed archaeological sites within the study area

Jill Hamel's *The Archaeology of Otago* (2001) contains a number of references to Lake Onslow. According to the publication, "freshwater mussel, *Hyridella menziesii*, was the only freshwater mollusc utilised by Maori...It is found in a wide range of inland sites (Fig. 6; Appendix 6), and is specifically mentioned as present in Diamond Lake and possibly Frankton Arm, Lake Wakatipu (Ritchie 1980a), Lake Onslow, and the Minzionburn."

⁵ <u>https://www.kahurumanu.co.nz/atlas</u> accessed June 29, 2021.

⁶ <u>https://archsite.eaglegis.co.nz/NZAAPublic</u> accessed June 29, 2021

Appendix 6 of the same publication lists Site Record G43/47 for Lake Onslow as an archaeological site containing freshwater mussels. This corresponds to the interior archaeological site shown on Figure 9, above.

Despite a lack of knowledge of what the remainder of the archaeological sites in Figure 9 represent, some assumptions can be made:

- 1. There is only one site located in the interior of Lake Onslow, while the remainder correspond to the shoreline of the lake.
- 2. The flooded extent of Lake Onslow was not achieved until the 1980s, meaning 4 out of the 5 sites may either be relatively "new" sites of archaeological significance, or that their locations are inaccurate. If the former assumption is correct, they are unlikely to be historic or cultural sites of significance to iwi.
- 3. The one site that is located in the lake interior (the mussel/kākahi archaeological site) would not be affected by the proposal, as the applicant is required to maintain lake levels well above this and any shoreline fluctuations would not come close to the site. If the site instead actually encompasses the whole of the historic (pre-1980) lakebed, there is also unlikely to be any effect as this area of the lake will always remain fully inundated due to current consent conditions that will remain unchanged.
- 4. As the minimum and maximum extent of Lake Onslow will not change as a result of the proposal, it is very unlikely that there would be any adverse effect on the 4 potential archaeological sites located close to the lake shoreline. It is, however, difficult to determine specific potential effects on these sites without possessing any information about them.

With regards to mahika kai values, how these relate to Lake Onslow is also not specified in the RPW schedules. However, the Lake Onslow area in general may have a history of moa hunting, as described in Hamel's 2001 publication (pg 19):

Inland moa hunting sites are also well described by Anderson (1989: 143 ff.)...Smaller sites are widely scattered, mostly along waterways, with a few spectacular high-country exceptions such as one at Lake Onslow and the Glenaray site on the Old Man Range (Anderson 1980a).

There may also be historic sites associated with Māori ovens, potentially used for cooking moa hunted in the area:

The large cluster of ovens around the Millers Flat and Lake Onslow area includes 37 which are recorded as having raised rims and another 19 which had been destroyed before they were recorded. Some of the latter were reported to have been associated with moa bones and flakes.

They include the large moa hunter sites at Millers Flat (G44/1 0) and Coal Creek (G43/51), as well as smaller scatters with flakes and sometimes moa bones at Lake Onslow. (page 44)

The specific location of these oven sites is unknown, however (as discussed earlier) as the consented minimum and maximum lake levels are not being amended as part of the proposal, it is difficult to imagine that there would be any detrimental effect to these sites beyond what may have already occurred due to the damming of the Teviot River.

It is unclear whether the freshwater mussel harvesting at Onslow pre-dates the formation of the lake, and the New Zealand Freshwater Fish Database (NZFFD) contains only one record of freshwater mussel (Card no. 30844), the location of which corresponds to the lower reach of the Teviot River, at the powerhouse above Roxburgh East Road. It is unlikely that any adverse effects to mussel in this location would occur, based on Mr Dungey's assessment that overall effects on Teviot River ecology and hydrology would most likely be neutral to positive (see earlier response). Effects of any mussels present in the lake would be captured by the monitoring proposal prepared by Mr Dungey, and effects can subsequently be managed via the proffered conditions of consent.

Finally, the NZFFD identifies a number of watercourses linked to Lake Onslow with records of koura. I understand koura (freshwater crayfish) is a mahika kai species, therefore there is potential for an effect on this species due to the proposal. However, Mr Dungey notes in one of his s92 responses (5/4/2018) that there has been commercial harvest of koura from Lake Onslow in recent years, therefore any effects of the drawdown on koura populations would likely be insignificant or at least overshadowed by this harvesting. Once again, any effects on this mahika kai source due to the proposal should be captured by the monitoring proposal and subsequent review required under the proposal consent conditions.

The following Kai Tahu values are identified for the Teviot River in Schedule 1D of the RPW:

 Mahika kai – places where food is procured or produced. Examples in the case of waterborne mahika kai include eels, whitebait, kanakana (lamprey), kokopu (galaxiid species), koura (fresh water crayfish), fresh water mussels, indigenous waterfowl, watercress and raupo.

Sites of archaeological significance close to the Teviot River downstream of the Onslow dam are shown in the below screenshot.



Figure 10: Archsite archaeological sites recorded in the vicinity of the lower Teviot River

As can be seen, there appear to be 3 potential archaeological sites on the Lower Teviot prior to reaching the Clutha valley, with a high concentration around the township of Roxburgh, as might be expected. We are not aware of the nature or significance of these sites.

The Teviot River does not feature in the aforementioned *The Archaeology of Otago* (2001), however based on Mr Dungey's assessments in association with the application it would appear that any mahika kai species that may be present in this section of the river (such as koura, longfin eel, or freshwater mussel) is unlikely to be negatively impacted by the proposed increased drawdown.

We note that the above assessment of cultural effects has been undertaken to the best of our abilities, but ultimately from a non-expert perspective, in isolation of input from iwi.

(8) Provide an assessment of effects of the proposal on the Regionally Significant Wetlands located adjacent to Lake Onslow (Fortification Creek Wetland Management Area and Middle Swamp). Confirm and assess whether the proposal will have any environmental effects on the regionally significant wetlands values of these wetlands.

Refer to Section 2 of Mr Dungey's response, attached in Appendix C. Values attributed to these wetlands, as shown on ORC's website, are listed below:

- Middle Swamp:
 - High degree of wetland naturalness.
- Fortification Creek Wetland Management Area:
 - Habitat for nationally or internationally rare or threatened species or communities. Habitat for threatened Banded Dotterel (*Charadrius bicinctus bicinctus*). The threatened plant species *Cardamine* sp. and *Ranunculus ternatifolius* also present.
 - High degree of wetland naturalness.

- Scarce in Otago in terms of its ecological or physical character. Scarce wetland type. One of the last remaining relatively uniform areas of red tussock (*Chionochloa rubra*) wetland combined with meandering streams.
- \circ \quad Regionally significant wetland habitat for waterfowl.
- (9) Confirmation of whether there are any known permitted activities on Lake Onslow and the Teviot River (e.g. water takes, gravel takes) and provide an assessment of any effects of the proposal on them.

To our knowledge, there are no permitted activities associated with Lake Onslow and the Teviot River. Consented activities on Lake Onslow are limited to those recently subject to a replacement application by Teviot Irrigation Company via Pioneer Energy (2001.472-474; associated with operation of the old Onslow dam), and those associated with Pioneer's activities at the Lake Onslow Dam (2001.475-478).

Regional consents pertaining to the Teviot River are numerous, and are held either by Pioneer Energy or the Teviot Irrigation Company. Pioneer Energy operate the Teviot Irrigation Company (TIC) consents on the Teviot River under an agreement previously provided to the ORC. As Pioneer operate TIC infrastructure on the Teviot River on their behalf, there is no effect on this consent holder.

(10) Provide an assessment of the effects of the proposal on the amenity values (including recreation values) and natural character associated with Lake Onslow including public access effects and dust effects. Confirm whether the proposal includes any of the monitoring proposed by Otago Fish and Game Council in their email dated 5 May 2021.

Key amenity values associated with Lake Onslow are assumed to be related to fishing, boating, camping and walking. The potential effects of the proposal on the Lake Onslow sports fishery has been discussed at length by Mr Dungey in his report attached to the original application, and the subsequent s92 responses provided in 2018. Based on these assessments, it appears likely that there will either be an overall minor positive response to angling potential due to increased invertebrate activity along re-colonised shoreline, or at least that this positive response will offset any potential negative effects due to the increased drawdown. Given the information already supplied to council on this subject, I do not consider there to be a need to postulate further. Any uncertainties should be addressed via the proposed monitoring regime.

It is not expected that there will be any significant adverse effects on other amenity values associated with Lake Onslow. As discussed throughout this document, the operating range of the lake will not be changed due to the proposal, therefore it is unlikely that boating, camping, walking,

or other activities would be significantly impacted. In the case of boating, it is our understanding that most or all boats at Lake Onslow are launched at the boat ramp (see Figure 11). This boat ramp should not be affected by the proposal to increase the drawdown rate, as the ramp is formed from concrete and access is assumed possible in any drawdown scenario. The below screenshots show aerial views of the ramp at different lake levels, with the impression given that the ramp is still operable at low lake levels.



Figure 11: Google Earth imagery of the boat ramp at high lake levels (24/1/2013) and low lake levels (23/3/2018)

With regards to the latter part of this further information request, we have confirmed with Ms Pritchard that the email referred to was in fact dated May 14th, 2021. The proposal does not include any of the monitoring suggested by Mr Paragreen in his email.

(11) Confirmation of the plant species present in Lake Onslow and their threat classification, if relevant, and provide a categorisation of these species (e.g. exotics, native species, pest species etc). Provide an assessment on whether the proposed change will have any effects on these populations of plants. I note that there is some reference to effects on macrophytes in the further information provided on 17 August 2018. Please outline whether the conclusions in this further information relate to all plant species and whether there is any increased potential for pest species to increase their habitat range as a result of the proposed change.

Refer to Section 3 of Mr Dungey's response in Appendix C.

(12) Provide an assessment of the effects on the ecological values of Lake Onslow beyond trout. Evidence from the New Zealand Freshwater Fish Database and previous reports indicates the potential presence of koura, eels, roundhead galaxiids, common bully and upland bully. I note that there is an assessment of effects on bully populations in the further information provided on 17 August 2018. Please outline whether this consideration extends to other species and provide any information on the presence or absence of the above species in the lake. Refer to Sections 4 and 5 of Mr Dungey's response in Appendix C.

(13) Provide a description of how the proposed change will alter the existing management of the lake including examples of current and proposed scenarios. Describe how the lake is currently managed and how it may be managed in the future with this change.

Pioneer Energy Ltd (PEL) has no intention to change the overall operating regime of Lake Onslow. The intention is to continue to use the reservoir for seasonal storage to supplement lower flow periods during summer to generate electricity that is injected into the local network and at times into the national grid. PEL currently has approximately 17MW of generation capacity installed on the Teviot River and contributes 90,000-95,000MWh of electricity into the Central Otago network annually. The increased drawdown rate that is being applied for is to provide PEL more flexibility to react to relatively short periods of high demand.

PEL operate Lake Onslow in order to maximise the value of the water available from storage. To achieve this PEL reduces outflow from Lake Onslow when inflows into the catchment downstream of Lake Onslow allow, thus retaining as much water in Lake Onslow as economically possible. In periods of reduced inflows or low demand PEL also "cycle" the generation on the Teviot Scheme over the 24hr day; this is achieved through adjusting flow from Onslow for increased generation at periods of peak demand and reduced outflow for low demand periods. Generation cycling is usually based on a day/night generation profile.

The current restriction of lake level drawdown means that at lake levels lower than about 1m below crest PEL is unable to take the consented maximum flows and at lower levels is effectively restricted to much lower rates of take. This means that PEL is unable to react to demand. As a general rule it is in late summer that national hydro-storage is operating at low levels and during this time there is maximum demand on the electrical system. It is at this time that short term peaks in demand warrant increased generation. The restriction in the ramping rate level at Onslow has a significant impact on the average allowable take when the lake is at lower levels which tends to coincide with late summer and periods of high demand.

Lake Onslow was constructed to provide seasonal storage to meet summer energy demands and PEL has a history of managing Lake Onslow in a responsible manner. PEL has historically not taken the maximum allowance from Lake Onslow, instead PEL identifies the value of maintaining water in the reservoir to provide for periods that are drier than normal. It is not in PELs interest to prematurely drain the reservoir as it is in times of drought that the value of the water stored in Lake Onslow is at its greatest. PEL must manage the water in Lake Onslow to ensure that there is sufficient water to provide for generation throughout the year and potentially to allow for consecutive dry years. The predicted variability of rainfall patterns associated with climate change in Otago will mean that PELs ability to react to demand, particularly at lower lake levels, will be a critical tool to both manage the available storage at Lake Onslow and meet societal demand for electricity.

Assessment of effects of the variation

(14) Please provide an assessment of the proposal against the following relevant documents:

- a. National Policy Statement on Renewable Electricity Generation 2011;
- b. National Policy Statement Freshwater Management 2020;
- c. Proposed Regional Policy Statement 2020;
- d. Kai Tahu ki Otago Natural Resource Management Plan 2005;
- e. Te Rūnanga o Ngāi Tahu Freshwater Policy Statement 1999.

National Policy Statement on Renewable Electricity Generation (NPSREG) 2011

Given that one of the primary purposes of the Lake Onslow Dam is to support downstream hydroelectricity generation, the NPSREG is relevant to the proposal. An assessment of the applicable objective and policies is provided below.

Objective - To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.

The aim of the proposal is to improve the electricity generation potential of the Lake Onslow/Teviot River hydroelectricity system by enabling Pioneer to utilise stored water more readily when consumer demand dictates. As such, the proposal is consistent with this objective.

Policy A - Decision-makers shall recognise and provide for the national significance of renewable electricity generation activities, including the national, regional and local benefits relevant to renewable electricity generation activities...[refer to the NPS for full policy]

As above, the Lake Onslow/Teviot River hydro system is a renewable electricity generation activity of arguably national importance. The proposal seeks to enable Pioneer to operate this system more efficiently in response to market demand, therefore it is consistent with this policy.

Policy B - Decision-makers shall have particular regard to the following matters:

a) maintenance of the generation output of existing renewable electricity generation activities can require protection of the assets, operational capacity and continued availability of the renewable energy *resource;* and

b) even minor reductions in the generation output of existing renewable electricity generation activities can cumulatively have significant adverse effects on national, regional and local renewable electricity generation output; and

c) meeting or exceeding the New Zealand Government's national target for the generation of electricity from renewable resources will require the significant development of renewable electricity generation activities.

Subpart (b) of this policy is particularly relevant, as the proposal seeks to improve the generation output of the Lake Onslow/Teviot hydro system by enabling increased drawdown and more flexibility in the management of outflows. This could have a cumulative *positive* impact on both local and regional renewable energy generation output, and furthermore contribute towards meeting national targets for renewable electricity generation per subpart (c).

Declining or further constraining the proposal would be contrary to this policy.

Policy C2 - When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decision-makers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.

As discussed throughout this document, the applicant is not aware of any adverse effects that will result due to the proposal. However, the LOMP and proposed new consent conditions have been formulated to capture any effects that may occur and manage them accordingly. Offsetting may be an option, should any significant effects become apparent through this process.

Policy D - Decision-makers shall, to the extent reasonably possible, manage activities to avoid reverse sensitivity effects on consented and on existing renewable electricity generation activities.

Lake Onslow was created for two purposes: hydroelectricity generation and irrigation water storage. Pioneer holds water permits that authorise the impoundment, take and discharge of water from the Teviot River/Lake Onslow – these are lawful activities under the RMA. From this perspective, there may be reverse sensitivity issues associated with recreational and amenity activities at Lake Onslow.

National Policy Statement for Freshwater Management, 2020 (NPSFM2020)

The NPSFM2020 came into effect on September 3rd, 2020, and sets overarching national direction for freshwater management. The following objective and policies are of most relevance to this application.

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 wellbeing, now and in the future.

The key focus of all of the assessments prepared in association with the application has been whether the proposal presents a risk to the health of Lake Onslow, the Teviot River, and associated tributaries. As discussed earlier, the summation of these assessments is that there is no indication that the health of these freshwater systems will be compromised due to the amendments sought, however the applicant has offered up detailed monitoring designed to capture any potential effects and subsequent conditions requiring the applicant to revert back to the current drawdown rate if any significant environmental effects are encountered.

As the Onslow/Teviot system provides renewable electricity to the Central Otago market and beyond, enabling Pioneer to more efficiently operate this system to maximise energy generation potential will have positive impacts on the social and economic well-being of people and communities in the area. Potential cultural effects of the proposal have been analysed earlier in this document.

Policy 1 - Freshwater is managed in a way that gives effect to Te Mana o te Wai.

As explained in Clause 1.3 of the NPSFM, "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 the health and wellbeing of any water body is made first priority. As a result, by protecting the mauri of a water body, providing for the health, social, economic and cultural needs of people becomes an easier task.

As explained above, assessments produced in support of the application to date have primarily sought to determine whether the proposal would have any adverse effect on the health and wellbeing of the subject water bodies. In this way, the proposal has provided due consideration of 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.

As discussed earlier, Aukaha (as representatives of local iwi interests) have been consulted throughout the application process and, where feasible, their concerns have guided the development of the latest suite of consent conditions and associated LOMP. The proposed consent conditions enable ongoing involvement of tangata whenua in the monitoring and review process post-consent(s) amendment decision.

Policy 6 - *There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.*

It is unclear whether the wetlands associated with Lake Onslow – specifically the Fortification Creek and Middle Swamp complexes – would constitute natural inland wetlands under the definition in Clause 3.21 of the NPSFM2020, on the basis that they may have a strong association with Lake Onslow, which is itself an artificial water body. Regardless, as Mr Dungey indicates in his responses in Appendix C, the proposal is not expected to result in adverse effects – including loss of extent – on these wetland complexes.

Policy 7 - The loss of river extent and values is avoided to the extent practicable.

There is no anticipated loss of river extent or values due to the proposal, as discussed earlier and in association with the assessments prepared by Mr Dungey as part of the application package.

Policy 8 - The significant values of outstanding water bodies are protected.

Schedule 1A values associated with Lake Onslow are listed as follows:

- Hriparian (presence of riparian vegetation of significance to aquatic habitats.)
- Hjuve(t) (presence of significant areas for development of juvenile fish: (t)=trout; (s)=salmon.)
- Hspawn(t) (presence of significant fish spawning areas: (t)=trout; (s)=salmon.)
- Trout (significant presence of trout)

Schedule 1A values associated with the Teviot River are listed as follows:

- Pboulder (bed composition of importance for resident biota.)
- Weedfree (absence of aquatic pest plants)
- Willowfree (in upper reaches)
- Hjuve(t&s)

- Hspawn(t&s)
- Hriparian
- Trout

Schedule 1A values associated with the Teviot River are listed as follows:

- Weedfree
- Rarefish (presence of indigenous fish species threatened with extinction)
- Significant habitat for roundhead galaxiid

As discussed above, there is no indication that any adverse effects to these listed values will result due to the proposal. The LOMP and proposed consent conditions have been designed to verify this assumption, and to revert back to the original drawdown consent condition if significant effects are determined.

Effects on Schedule 1D (Kai Tahu) values are considered earlier in this document.

Policy 9 - The habitats of indigenous freshwater species are protected

As has been discussed throughout this document and in the application package, there is no indication that any harm to the habitats of indigenous freshwater species will occur due to the proposal, however this will be confirmed via the proposed monitoring.

Policy 10 - The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.

Potential effects on salmonid habitat – particularly the brown trout fishery in Lake Onslow – has been the subject of considerable assessment as part of the application and subsequent consultation with Fish & Game and the Teviot Angling Club. Based on these assessments, there is no indication that the proposal is contrary to this policy, however the LOMP is designed to verify this.

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.

The proposal seeks to enable the more efficient operation of the Lake Onslow dam, which has positive implications for the community and economy as a significant renewable energy source.

Overall, it is considered that the proposal is consistent with the objective and policies of the NPSFM2020.

Otago proposed regional policy statements

There are now two regional policy statements which warrant assessment against the application – the Partially Operative Regional Policy Statement for Otago, 2019 (PORPS), and the Proposed Regional Policy Statement for Otago, 2021 (PRPS). Despite the fact that the PORPS has not yet been made fully operative, the PRPS was notified on 26 June 2021 in order to reflect and accommodate ORC's 2019 water management framework review and a range of new national environmental legislation. While significantly more weight is afforded to the PORPS due to it's status, a brief review of policies within both policy statements that are relevant to the present application is provided below.

PORPS

Policy 1.1.1: Provide for the economic wellbeing of Otago's people and communities by enabling the resilient and sustainable use and development of natural and physical resources.

Policy 1.2: Recognise and provide for the integrated management of natural and physical resources to support the wellbeing of people and communities in Otago

Policy 2.2.1: Manage the natural environment to support Kāi Tahu wellbeing by all of the following:

a) Recognising and providing for their customary uses and cultural values in Schedules 1A and *B*; and

b) Safe-guarding the life-supporting capacity of natural resources.

Policy 5.4.3: Apply a precautionary approach to activities where adverse effects may be uncertain, not able to be determined, or poorly understood but are potentially significant or irreversible.

The potential for the proposal to provide for the economic wellbeing of Otago's people and communities has been discussed earlier in this document. The proposal seeks to achieve a balance between Otago's natural resources (namely Lake Onslow and the Teviot River) and the wellbeing of people and communities in Otago. Consideration of Kāi Tahu values as they relate to proposal is provided throughout this document. A precautionary approach has been proposed via the LOMP and associated consent conditions, whereby any effects that have not been anticipated by the application should be captured and mitigated accordingly.

Overall, the proposal is considered to be consistent with the above policies.

<u>PRPS</u>

MW-P3: The natural environment is managed to support Kāi Tahu well-being by:

- (1) protecting customary uses, Kāi Tahu values and relationships of Kāi Tahu to resources and areas of significance, and restoring these uses and values where they have been degraded by human activities,
- (2) safeguarding the mauri and life-supporting capacity of natural resources, and
- (3) working with Kāi Tahu to incorporate mātauraka in resource management.

IM-P13: Otago's environmental integrity, form, function, and resilience, and opportunities for future generations, are protected by recognising and specifically managing the cumulative effects of activities on natural and physical resources in plans and explicitly accounting for these effects in other resource management decisions.

IM-P15: Adopt a precautionary approach towards proposed activities whose effects are uncertain, unknown or little understood, but could be significantly adverse, particularly where the areas and values within Otago have not been identified in plans as required by this RPS.

In all management of fresh water in Otago, prioritise:

- 1. first, the health and well-being of water bodies and freshwater ecosystems, te hauora o te wai and te hauora o te taiao, and the exercise of mana whenua to uphold these,
- 2. second, the health and well-being needs of people, te hauora o te tangata; interacting with water through ingestion (such as drinking water and consuming harvested resources) and immersive activities (such as harvesting resources and bathing), and
- *3.* third, the ability of people and communities to provide for their social, economic, and cultural wellbeing, now and in the future

For similar reasons to those provided in the above assessment against the PORPS and the NPSFM2020, the proposal is considered to be consistent with the above policies, and with the PRPS in general. The proposal is not anticipated to have a significant adverse cumulative effect on the environment.

Kai Tahu ki Otago Natural Resource Management Plan 2005 (NRMP)

The policies within the Kāi Tahu ki Otago NRMP that are considered particularly relevant to this application are presented in the below table. The proposal is considered generally consistent with these policies, as discussed in the table.

Policy	Comments
To require an assessment of instream values for all activities	An assessment of instream values for Lake
affecting water.	Onslow was provided in the original application
	AEE (Section 3), and in the subsequent s92
	responses provided by Mr Dungey in 2018.
	Further assessment has been provided in Mr
	Dungey's latest response, provided in Appendix
	С.
To protect and restore the mauri of all water.	There is no indication that there will be a more
	than minor adverse effect on Lake Onslow or the
	Teviot River, however any potential effects on
	mauri may be captured by the LOMP and
	proposed new consent conditions. It is
	acknowledged, however, that we are not
	experts on this subject.
To encourage Käi Tahu ki Otago input into the development of	Kai Tahu (via Aukaha) has been involved in the
monitoring programmes.	development of the LOMP.
To require that fish passage is provided for at all times, both	As explained in the application, fish passage is
upstream and downstream.	not expected to be impacted by the proposal.

Table 3: Relevant policies of the Kāi Tahu ki Otago NRMP

Policy	Comments
To require gradual rather than instantaneous ramping to	The proposal seeks an increase in the drawdown
control fluctuations in river flow.	rate on Lake Onslow, which may have an impact
	on downstream river flow fluctuations, however
	the work of Mr Dungey (discussed earlier)
	suggests that the likely timing of the increased
	drawdown (late summer) would also coincide
	with low flows in the downstream Teviot River.
	These low flows may act as an ecological
	bottleneck, however supplementary flows from
	the dam via the proposed increased drawdown
	may actually help to better support resident
	aquatic species and their habitat ^{7 8} . We also note
	that the applicant has reduced the originally
	sought drawdown of 0.5 m/week to 0.4 m/week
	following consultation with stakeholders.
To require effects associated with dam management (e.g. flow	The assessment of effects with regards to this
issues, changes to waterways upstream downstream, habitat	application is limited to the change sought – in
changes, fish passage, inundation of values habitats, health	this case, an increase in the drawdown rate, and
and safety issues, siltation concerns, erosion) are addressed.	a proposal to monitor effects of the increased
Where the scale of effects is such that it cannot be addressed	drawdown and impose mitigation as needed.
to the satisfaction of Kä Papatipu Rünaka and depending on	There is no indication that the proposal will
the legal status of the dam Kä Papatipu Rünaka may advocate	result in significant adverse effects, however the
for either the removal of existing dams or decline consent to	LOMP and associated conditions have been
dam.	formulated to address any such concerns
	regarding unforeseen effects.

⁷ Dungey s92 response 5/4/2018, Potential Effects (1)

⁸ Dungey s92 response 5/4/2018, Potential Effects (6)

Te Rūnanga o Ngāi Tahu Freshwater Policy Statement 1999

The Ngāi Tahu Freshwater Policy Statement has status as an iwi management plan, to complement and be read alongside the Kāi Tahu Ki Otago NRM.

With regards to mauri, this is discussed in Table 3, above. In terms of mahinga kai objectives and policies under the policy statement, it is not expected that the proposal will have significant adverse effects on mahinga kai species in the Teviot River catchment. As discussed earlier, there is even the potential to improve mahinga kai habitat in the river downstream of the dam by providing greater flows in late summer. Finally, Māori interests and kaitiakitanga in the catchment have been recognised by ongoing consultation with Aukaha.

I trust that the information set out above satisfies the request for further information. However, if you have any further queries, please do not hesitate to contact me.

Kind Regards,

Will Nicolson Scientist/Resource Management Planner

Appendix A: Lake Onslow dam gazette notice

(e) Three members elected by the parents of pupils attending Kamo High School;

(f) One member to be co-opted by the Board of Governors itself, if and when it thinks fit.

Dated at Wellington this 27th day of April 1978.

L. W. GANDAR, Minister of Education.

Control of Cromwell College Notice 1978

PURSUANT to regulation 4 of the Education (Forms I-VII Schools) Regulations 1976, the Minister of Education hereby gives notice that he vests the control of Cromwell College in the Otago Education Board.

Dated at Wellington this 26th day of April 1978.

L. W. GANDAR, Minister of Education.

Logan Park High School Board of Governors Variation Notice 1978

PURSUANT to section 51 of the Education Act 1964, the Minister of Education hereby gives the following notice.

NOTICE

1. This notice shall be cited as the Logan Park High School

This notice shall be cited as the Logan Park High School Board of Governors Variation Notice 1978.
 This notice shall come into force upon the date of its publication in the New Zealand Gazette.
 The Logan Park High School Board of Governors Notice 1976* is hereby varied by deleting from section 2 (d) of the said notice the words "the Waikouaiti County Council" and substituting the words "the Silver Peaks County Council".

Dated at Wellington this 20th day of April 1978.

L. W. GANDAR, Minister of Education. *New Zealand Gazette, No. 115, 11 November 1976, p. 2553.

Consenting to the Assignment of a Licence to use Water for the Purpose of Generating Electricity

PURSUANT to the Electricity Act 1968, the Minister of Energy hereby assigns to Wainwright Investments Limited, of Maruia Springs, Lewis Pass, a licence dated 13 September 1973, authorising Maruia Hot Springs Chateau Ltd, of Lewis Pass, 20 September 1973, p. 1797), the licence having been assigned previously to Stanmaur Properties Ltd, Hokitika, (Gazette, 15 September 1977, p. 2488).

Dated at Wellington this 28th day of April 1978.

GEORGE F. GAIR, Minister of Energy.

(NZE 11/20/283)

Consent to the Generation of Electricity by the Otago General Electric Power Board by the Use of Water.

PURSUANT to section 25 of the Electricity Act 1968, the Minister of Electricity consents to the generation of electricity by the Otago Central Electric Power Board, subject to the following conditions.

CONDITIONS

CONDITIONS 1. The conditions directed by the Water Power Regulations 1934, to be implied in every licence to use water for the pur-pose of generation or storing electricity, shall be deemed to be conditions of this consent as if it were such a licence. 2. This consent is subject to compliance with the Water Power Regulations 1934, the Electrical Supply Regulations 1976, the Electrical Wiring Regulations 1976, the Radio Interference Regulations 1958, and all regulations hereafter made in amendment or in substitution for any of those regulations, as if in the case of the Water Power Regulations 1934 it were a licence under the Public Works Act 1928, to use water for the purpose of generating electricity, as well as a consent under the Electricity Act 1968, to generate electri-city by the use of water. city by the use of water.

3. The generation of electricity by the use of water, pur-suant to this consent, shall be carried out by means of the works described in the Schedule hereto.

4. This consent shall, unless it is sooner lawfully deter-mined continue in force for a period of 21 years from the 1st day of June 1978.

5. This consent confers no rights to water under the Water and Soil Conservation Act 1967 or otherwise.
6. This consent shall come into force on the 1st day of

June 1978. 7. The station shall be operated to supply the normal electricity demand of the Otago Central Electric Power Board and to conform reasonably to the pattern of the supply authority's daily load curve.

8. For the purpose of assessing in accordance with the Water Power Regulations 1934, the rental or annual sum payable in respect of this consent, the maximum generating capacity of the scheme shall be assessed at 8200 kw.

SCHEDULE

General Description of Works

The water for the Teviot Station extensions is to be stored in a new dam to be constructed at a point in Block 15, Teviot Survey District, 580 metres below the existing Lake Onslow Dam, and a controlled discharge of water will be used for generating electricity by means of the following works. (a) Headworks consisting of a dam situated in Block 6, Section 30S, Roxburgh Survey District, 1500 metres upstream from the existing Ministry of Works tunnel intake The water for the Teviot Station extensions is to be stored

- tunnel intake.
- (b) A 3000 metre concrete and steel pipe line leading from the intake dam to a power station situated in Block 6, Section 30S, Teviot Survey District.
 (c) A power house B containing a water turbine and all
- a maximum capacity of 1200 kw.
- (d) The water is discharged through a 1700 metre system of
- (d) The water is discharged through a 1700 metre system of open races and head water ponds supplying the Ministry of Works and Development irrigation scheme and water for power station A.
 (e) An inlet structure diverts water through a 1009 metre steel penstock to power house A which is located adjacent to the Teviot Bridge power house in Block 2, Teviot Survey District.
 (f) A power house containing two water turbines and all the necessary equipment for generating electricity having a maximum capacity of 7000 kw.
 (e) The water is discharged directly into the Teviot River
- (g) The water is discharged directly into the Teviot River at the power house.

All as shown on a plan marked NZE 961 and deposited in the office of the Ministry of Energy, Electricity Division, at Wellington.

Dated at Wellington this 1st day of May 1978.

GEORGE F. GAIR, Minister of Energy.

(N.Z.E. 10/44/2)

ha

Post Office Bonds Weekly Draw No. 1, May 1978

PURSUANT to the Post Office Act 1959, notice is hereby given that the result of the weekly prize draw No. 1, for 6 May 1978 is as follows:

One prize of \$7,500: 381 117311

P. I. WILKINSON, Postmaster-General.

Maori Land Development Notice

PURSUANT to section 330 of the Maori Affairs Act 1953, the Maori Land Board hereby gives notice as follows:

NOTICE

1. This notice may be cited as Maori Land Development Notice Rotorua 1978, No. 2.

2. The lands described in the Schedule hereto are hereby declared to be subject to Part XXIV of the Maori Affairs Act 1953.

SCHEDULE

SOUTH AUCKLAND LAND DISTRICT

ALL those pieces of land described as follows:

Being

- Ina Being
 21.9618 Lot 31J. Parish of Rangitaiki, situated in Blocks IV and V, Whakatane Survey District. All certificate of title, Volume 337, folio 25.
 1.6390 Lot 31K, Parish of Rangitaiki, situated in Block VIII, Whakatane Survey District. All certificate of title, Volume 378, folio 166.
 10.6660 Lot 31L, Parish of Rangitaiki, situated in Blocks VIII and IX, Whakatane Survey District. All certificate of title, Volume 421, folio 217.

Appendix B: Email from Tony Jack to Natasha Pritchard regarding Beaumont Station Ltd & Record of Title 0T338/21

Will Nicolson

From:	Tony Jack <tony.jack@pioneerenergy.co.nz></tony.jack@pioneerenergy.co.nz>
Sent:	Tuesday, 6 July 2021 11:13 AM
То:	Will Nicolson; Natasha Pritchard
Subject:	RE: OT15C_1053_Title_Search_Copy, OT15A_87_Title_Search_Copy, OT17A_329 _Title_Search_Copy
Attachments:	20210706111205592.pdf

Hi Natasha,

Attached is some letters from our files from around the time that Section 32 & 34 were surrendered from the Beaumont lease. Unfortunately I can't locate anything to close off the line of correspondence. But it does indicated that the power board (PEL's predecessor) compensated the leases for the land to be surrendered for the purpose of the lake.

Regards

Tony Jack Development Engineer

11 Ellis Street P.O Box 275 Alexandra 9320, New Zealand M: 027 733 2555 P: 03 440 0022 W: www.pioneerenergy.co.nz



From: Will Nicolson <will@landpro.co.nz>
Sent: Tuesday, 6 July 2021 10:52 AM
To: Natasha Pritchard <natasha.pritchard@orc.govt.nz>; Tony Jack <tony.jack@pioneerenergy.co.nz>
Subject: RE: OT15C_1053_Title_Search_Copy, OT15A_87_Title_Search_Copy, OT17A_329_Title_Search_Copy

Yes I can't think of any either. I will run it past LINZ anyway, and will also confirm with DOC.

Cheers, Will

Will Nicolson

Scientist/Resource Management Planner



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New Plymouth | Cromwell | Gore

landpro.co.nz



From: Natasha Pritchard <<u>natasha.pritchard@orc.govt.nz</u>>
Sent: Tuesday, 6 July 2021 10:24 AM
To: Will Nicolson <<u>will@landpro.co.nz</u>>; Tony Jack <<u>tony.jack@pioneerenergy.co.nz</u>>
Subject: RE: OT15C_1053_Title_Search_Copy, OT15A_87_Title_Search_Copy, OT17A_329_Title_Search_Copy

Thanks Will and Tony,

The screenshot helps regarding the LINZ management query.

Yes, it will be a consideration that will need to be made regarding affected persons and having clarity on who/who not is managing the Crown Land is the necessary first step. Hopefully DoC can check on their database and confirm one way or the other. I am not sure of any other parties who manage Crown Land on their behalf?

Cheers, Natasha

From: Will Nicolson <<u>will@landpro.co.nz</u>>
Sent: Tuesday, 6 July 2021 10:18 a.m.
To: Tony Jack <<u>tony.jack@pioneerenergy.co.nz</u>>; Natasha Pritchard <<u>natasha.pritchard@orc.govt.nz</u>>
Subject: RE: OT15C_1053_Title_Search_Copy, OT15A_87_Title_Search_Copy, OT17A_329_Title_Search_Copy

Morning folks,

Natasha –further to Tony's email below, it may be a bit of a rabbit hole going to DOC or LINZ to confirm that they (presumably) don't manage those strips. Is your thinking that they might somehow otherwise be affected by the proposal if we can't get WA from them? Given that it appears that LINZ doesn't manage the crown land at Onslow, I could potentially confirm with DOC if that is your thinking.

Sounds good re: the s92 request.

Regards, Will

Will Nicolson

Scientist/Resource Management Planner



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New Plymouth | Cromwell | Gore

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From: Tony Jack <<u>tony.jack@pioneerenergy.co.nz</u>>
Sent: Tuesday, 6 July 2021 10:12 AM
To: Natasha Pritchard <<u>natasha.pritchard@orc.govt.nz</u>>; Will Nicolson <<u>will@landpro.co.nz</u>>
Subject: RE: OT15C_1053_Title_Search_Copy, OT15A_87_Title_Search_Copy, OT17A_329_Title_Search_Copy

Hi Natasha

I do not have corresponsive with LINZ as to the LINZ managed land but the attached screen shot is from the LINZ data service.

It shows LINZ managed crown land (in red) laid over the property titles and aerial of Lake Onslow. Based on this information Sections 32 & 34 of SO22593 are not included in the Linz managed Crown property

Regards

Tony Jack Development Engineer 11 Ellis Street P.O Box 275 Alexandra 9320, New Zealand M: 027 733 2555 P: 03 440 0022 W: www.pioneerenergy.co.nz



From: Natasha Pritchard <<u>natasha.pritchard@orc.govt.nz</u>>
Sent: Tuesday, 6 July 2021 10:00 AM
To: Tony Jack <<u>tony.jack@pioneerenergy.co.nz</u>>; Will Nicolson <<u>will@landpro.co.nz</u>>
Subject: RE: OT15C_1053_Title_Search_Copy, OT15A_87_Title_Search_Copy, OT17A_329_Title_Search_Copy

Kia ora kōrua,

Thank you for providing these. They are helpful in confirming the bed ownership. It will be of assistance to have correspondence from DoC and LINZ regarding the Crown land including advice from them on whether or not it is part of land they manage on behalf of the Crown. Will/Tony do you wish to seek that confirmation?

Apologies with the delay for formalising the s92 request. I am having technical difficulties at home today accessing our database and I am hoping to have it with you later this morning. There should be no surprises beyond what was in the email dated 23 June and what was discussed yesterday, although I have included the KTkO iwi management plan to the relevant documents for assessment of the proposal against.

Kā mihi, Natasha



Natasha Pritchard PRINCIPAL CONSENTS OFFICER

P 0800 474 082 | M 027 228 2072 <u>natasha.pritchard@orc.govt.nz</u> www.orc.govt.nz

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From: Tony Jack <<u>tony.jack@pioneerenergy.co.nz</u>>
Sent: Monday, 5 July 2021 4:38 p.m.
To: Natasha Pritchard <<u>natasha.pritchard@orc.govt.nz</u>>

Cc: Will Nicolson <<u>will@landpro.co.nz</u>> Subject: OT15C_1053_Title_Search_Copy, OT15A_87_Title_Search_Copy, OT17A_329_Title_Search_Copy

Natisha,

Land titles for the Bed of Lake Onslow, excluding the bed of the original lake. PEL owns all of the land between the current shoreline and the old shoreline with the exception of Sec 32 & 34 of SO 22593. Those sections are crown land that we part of land held under Lease under S83 Land Act 1948 that was surrendered 25/9/91 (see OT338_21).

Tony Jack Development Engineer

11 Ellis Street P.O Box 275 Alexandra 9320, New Zealand M: 027 733 2555 P: 03 440 0022 W: www.pioneerenergy.co.nz



03) 459 5775

13 September 1990

DeChecketts McKay Lawyers P.O. Box 184 RECROMMELDNSLOW

ATTENTION: Mr A.B. McKay

ther recently sent to Landgorp in response

and Jorg man

will advise you as soon as a ceply is received.

RE: LAND LAKE ONSLOW

The Board has resolved to take up the issue of land ownership in the new Lake Onslow with Landcorp.

Previously the Department of Lands and Survey had agreed to adjust the leases provided the Board arranged the survey.

The Board awaits a reply through McGeorge & Elder who have written to Landcorp.

Yours faithfully

D.G. Ellis General Manager

6 ARONUI ROAD

41410/10

DUR REF. 1949 YOUR REF. 90/88/E

1031 448 8775

16th August 1990

The General Manager Central Electric P O Box 275 ALEXANDRA

RECEIVED 2 0 AUG 1990 0.C.E.P.B.

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Dear David

L

RE. LAKE ONSLOW

I enclose a copy of the letter recently sent to Landcorp in response to your letter of 23rd July 1990.

I will advise you as soon as a reply is received.

Yours faithfully McGeorge & Elder

per horge f

and august 1990

The Branch Manager Landcorp. P O Box 5744 Moray Place DUNEDIN



Dear Sir

RE. LAKE ONSLOW

T am writing to enguire what steps have to be taken to regularise the land ownership following the raising of Lake Onslow.

I understand that the Otago Central Electric Power Board has compensated the lessees for the loss of land although it still remains in the leases. The Hands & Survey Dept.aggeedd that "The land which has been inundated and the new Section 58 strip should be surrendered from the leases and this Department would prepare the required documents once the survey has been completed and approved and provided the normal fees are paid."

This action has yet to be taken and in addition there is the complication that Landcorp Investments Limited has, in the case of Mr Cloag, granted him a freehold title to the inundated land, now CT 13A/1024, M.R.McCaughan.

Please advise me what steps should be taken to complete the transactions based on SO 22593 and 22594.

Yours faithfully McGeorge & Elder

per

Show Historical View

GRIP TITLE INFORMATION PREVIEW



Leasehold

Identifier Land Registration District Date Registered		OT338/21 Otago 05 December 1952 02:10 PM	Ρ	art-Cancelled
Prior References OT337/150				
Estate	Lease unde	r s83 Land Act 1948		
Area:	27901.8610) hectares more or less	Term	Thirty-three years commencing on the first day of July 1951 and extending for a further thirty-three years commencing 1 July 1984 and further extended for a term of 33 years commencing on the 1st day of July 2017
Legal Description	Run 656 an Run 814 an Section 32- and Sectior District and Survey Dist	d Run 657 and Run 658 and d Run 815 and Run 816 and 35 Survey Office Plan 22593 n 3 Block I Lammerlaw Survey I Section 15 Block VII Beaumor rict	nt	
Registered Owners Beaumont Station Lim	nited			
Interests 390698 Surrender of v CT OT5A/804 issued -	within Lease a 13.9.1972 at	as to Section 15 Block VII Beau 2:23 pm	mont Survey Distric	t and Section 3 Block I Lammerlaw Survey District -
617822.2 New Appella	ation - Part R	un 657 (130 hectares) is now k	nown as Run 814 -	9.7.1984 at 9:15 am
617822.3 New Appella	ation - Part R	un 657 (2300 hectares) is now	known as Run 815 -	- 9.7.1984 at 9:15 am
617822.4 New Appella	ation - Part R	un 657 (1500 hectares) is now	known as Run 816 -	- 9.7.1984 at 9:15 am
716317 New Appellat	ion - Parts Ru	in 656 are now known as Secti	ons 32-35 SO 22593	3 - 18.11.1988 at 9:17 am
788865.3 Surrender o	f the within L	ease as to Sections 32 and 34	SO 22593 - 25.9.199	91 at 9:25 am

826713 Memorandum renewing the term of the within Lease for a further term of 33 years commencing 1.7.1984 - 29.3.1993 at 10:13 am

870608 Transfer creating the following easements - 28.11.1994 at 9:38 am

Туре	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
			Part Section 51 Block VIII	
Convey water	Run 815 - herein	A-B DP 22125	Waipori Survey District - CT OT2C/1162	N/A

902992.2 Mortgage to Bank of New Zealand - 7.3.1996 at 10:12 am

5022833.1 Variation of the within Lease - 8.2.2001 at 9:00 am

The easements created by Deed of Easement 8614238.1 are subject to Section 243 (a) Resource Management Act 1991

8614238.1 Deed of easement affecting fee simple estate of Her Majesty the Queen being the grant of a Right of Way and Right to Convey Water in gross to Tella Burn Generation Limited marked D DP 407503 under Section 60 Land Act 1948 embodied in Register 537962 - 14.10.2010 at 7:00 am

9552172.1 Advice under section 23I(6) of the Crown Pastoral Land Act 1998 that the base carrying capacity of the within pastoral lease is

3565 stock units - 24.10.2013 at 7:00 am

10611232.1 CAVEAT BY AURORA ENERGY LIMITED - 3.11.2016 at 2:55 pm

Subject to Part IVA Conservation Act 1987

10803368.2 Renewal and variation of the within lease for a further term of 33 years commencing on the 1st day of July 2017 - 26.5.2017 at 7:00 am

11608353.2 Variation of Mortgage 902992.2 - 29.11.2019 at 10:45 am

Disclaimer: This preview provides an indication of the likely content of Record of Title OT338/21, it is not a substitute for an authoritative Record of Title. For an authoritative Record of Title of OT338/21 please contact Land Information New Zealand. This content of this preview has been generated using data sourced from LINZ Data Service on 25/07/2021.

Appendix C: Further information response from Ross Dungey

S92 re Onslow Consent.

1. Background.

The application is to increase the maximum allowable draw down rate from 200mm/week to 400mm/week. There is no change sought to the operating regime and the rate of take remains capped at 6 cumecs. **The only change sought is the maximum allowed draw down rate**. The primary control on water availability is rainfall and lake recharge is related to significant weather events that fall within a large catchment of approximately 12600 Ha. The lake is 3% of the catchment area.

No potential adverse effects could be identified when considering the potential impacts of a 400mm/week maximum draw down rate, and none are anticipated.

2. Wetlands Upstream of the Lake.

- 1. Wetlands are upstream of the proposed new activity, increased drawdown rate, and therefore unable to be affected by the proposed activity. There is no way for effects to be transmitted upstream and the wetlands are therefore isolated from the storage operations of the lake. A move to raise the lake level would potentially affect the wetlands by flooding but this is not the case.
- 2. The connecting channels from pre-Lake Onslow (1982) when the area was called "Dismal swamp" are still present and as lake level falls these are still the connection to the lake from all inflows. They are deeply incised meandering channels with clear connections to the lake basin. They become visible at lower lake levels and still operate as the connection between the lake and upper catchment.
- 3. The same hydraulic controls that controlled water flow from the wetlands originally are still in place and can be observed at a lake level of 2m below the weir crest. These controls limit the flow from the streams entering the lake and therefore also the rate at which the water leaves the wetlands. It is not draw down rate that controls inflow.
- 4. There is no indication, based on our understanding of the hydraulic relationship between the lake and these wetlands, that there would be adverse effects on the listed values of these regionally significant wetlands by increasing the draw down rate.
- 5. Refill of the lake is controlled by rain events and so outside the effects of the operating regime so recharge of the wetlands and streams draining into Lake Onslow are also independent from the drawdown rate.

3. Aquatic Plants.

There appears to have been no formal surveys on aquatic plants other than to establish there were are no pest species present in Lake Onslow. On this basis, there is little likelihood of increased potential for plant pest species to increase due to the proposal. As part of previous monitoring and freshwater studies the main emergent species so far identified are *Myriophylum* and *Potamogeton*. A comprehensive list of aquatic plants is to be developed next summer, as described below.

A detailed assessment of aquatic plants is part of the proposed monitoring schedule submitted with this application. To accurately assess aquatic plant species a survey would need to be

conducted in mid to late summer when seasonal growth has reached a high point and the species present are most abundant and obvious.

4. Fish.

- 1. There are only brown trout (*salmo trutta*) and common bullies (*gobiomorphus cotidianus*) in Lake Onslow. These species are useful as indicators of change as they are abundant and relatively easy to sample.
- 2. There are no eels present and given the steep terrain downstream of the dam probably never have been. Natural barriers have excluded eels perhaps since the last ice age.
- 3. The galaxiids recorded in the NZFFD are not found in the lake but only a few tributaries of the lake and tributaries of the Teviot River below the Onslow dam.
- 4. Likewise, upland bully are restricted to tributary streams
- 5. No adverse effects on lake ecology are anticipated but the proposed monitoring involves a check on bully and trout parameters just in case an effect emerges.
- 6. Fish in the tributary streams (upstream) cannot be affected by the proposed activity, barriers present will not be affected.

5. Lobster.

- 1. The lobster (*paranephrops zealandicus*), also known as koura, is present throughout the lake though in relatively low numbers.
- 2. They form a small recreational fishery but in recent years commercial harvest has been undertaken which has anecdotally reduced numbers significantly. Lobsters are slow growing in natural environments and therefore cannot sustain a high level of harvest.
- 3. A Pioneer Energy study in 2008 surveyed the lobster population and recorded a size range of 79-196mm. Mean lobster length was 136.8mm but "in berry" females averaged slightly larger at 142.8mm.
- 4. The large average size and the apparent lack of juveniles was at least in part due to the sampling program schedule and the territorial behaviour of larger lobster who will defend the bait/trap against others. If the sampling extended over a longer period and large adults removed, smaller lobsters would make up a greater proportion of the catch and the demographics more accurately determined.
- 5. Lobsters are most common in deep areas associated with rocky shorelines; 87% of those captured were found in deep rocky shoreline compared to 13% found in shallow muddy habitats.
- 6. Their mobility and habitat preference minimises the risk of stranding as the lake level falls and an increase from 200mm/week to 400mm/week seems unlikely to increase this risk.
- 7. No adverse effect is anticipated on the lobster population from an increase in drawdown rate.

6. Proposed monitoring.

In considering potential effects of an increased draw down rate no effects could be clearly identified, based on the assessment conducted in support of the original application, and from subsequent assessments provided to Council in response to s92 requests in 2018. The drawdown rate is a minor part of the overall operating regime, other components of which

have an overriding effect on lake ecology. The approach taken was to select a range of aquatic ecology parameters with the most potential to exhibit an effect from the proposal and measure those. With several bases covered there should be an increased sensitivity/resolution and therefore ability to detect minor changes which could then be examined for clues as to what any changes defined were related to, such as increased draw down rate.

Ross Dungey July 2021