

From: [Tony Jack](#)
To: [Natasha Pritchard](#); [Will Nicolson](#)
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values
Date: Friday, 24 September 2021 11:21:35 a.m.
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.jpg](#)
[image007.jpg](#)
[image008.jpg](#)
[Lake Onlow 6 week outflow to 1 May 2021.xlsx](#)

Natasha,

Frankly I am not sure as I am having difficulty keeping up with the number of emails and questions.

For your benefit I have attached a snap shot of 6weeks flow and level data to show the variability of outflow that there currently is. The data is for the 6 weeks leading up to 1/5/2021 when the lake was around 2-2.5m below crest. I have attempted to provide enough detail to see the short term variability but a long enough period to see the effects.

You will see from the data that there is variability in outflow on both an intra day and inter day timeframe. The pattern is not necessarily consistent as it is influenced by a range of external factors. But generally there are periods that have a day night cycle which can have around 50% variability in flow over a given day and then there are other periods that are fairly stable over several days. You can also see the response of the lake to changes in flow (keeping in mind that there is natural inflow occurring, albeit modest during this period).

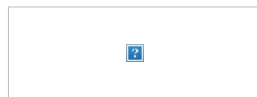
Will the proposed variation significantly change this operating regime? I don't expect that it would, there may potentially be a few more higher peaks and the periods of constant flow may be increased by a percentage. i.e. in the attached data set the periods with steady flow of about 2.4m³/s might increase to 3m³/s, this is pure speculation however. The value of water and generation is generally greatest in last summer when national storage is low so there is little reward in using all the storage early in the season at the expense of not having water available in the late summer. Its all about managing risk.

With regards to your request for more scenarios at lower drawdown. This was fairly well covered in Will's email dated 9/9. There is no benefit in calculating the maximum short term drawdown rates at greater depths because there will be no change to these under the proposal as these will always be limited by the maximum allowable take of 6m³/s.

Tony Jack

Development Engineer

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From: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Sent: Thursday, 23 September 2021 5:08 PM
To: Tony Jack <tony.jack@pioneerenergy.co.nz>; Will Nicolson <will@landpro.co.nz>
Subject: Re: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Tony,

Thank you for your prompt response.

Are you able to confirm that the comments and position below relate to both emails or just the second email re duration at lower lake levels.

Much appreciated,
Natasha

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From: Tony Jack <tony.jack@pioneerenergy.co.nz>
Sent: Thursday, September 23, 2021 3:47:12 PM
To: Natasha Pritchard <natasha.pritchard@orc.govt.nz>; Will Nicolson <will@landpro.co.nz>
Subject: Re: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Natasha

I'll apologise to start as I am typing this on my phone.

To put it bluntly I cannot see the future. I cannot predict rainfall, the demand for electricity or whether the year will be dry wet cold or hot. What I can say is that Pioneer has to manage lake Onslow in a way that ensures that we are able to meet our obligations to irrigator and our shareholders (the central lake trust), and statutory requirements. we have do do this across seasons and years. It is in Pioneers best interest to have as much water in the lake as possible, but the lake was built for one purpose, to store water to allow year round generation of electricity. The fact that when developed there was the foresight to have enough storage that it was infrequently fully utilised is a testament to the Otago Central a electric power board. Pioneer has no intention to empty the lake any more frequently than it has historically.

If you wish to consider the worst case scenario. You need to consider the possibility that the lake is drawn down 5.2m and held down at that level as long as inflows would allow. That can happen today under the current conditions just as it could under the proposed variation.

You may also wish to consider that from 1984 until 2006 there was not any restriction on the rate on drawdown on the lake. The variability of the lake during that period was not all the different to what it has been since 2006.

We will not be providing any further input on this with out good cause as the amount of information that has been provided far out weighs the scale of this applications

Regard's

Tony

Tony Jack

From: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Sent: Thursday, September 23, 2021 2:44:47 PM
To: Will Nicolson <will@landpro.co.nz>
Cc: Tony Jack <tony.jack@pioneerenergy.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Will,

Thank you for the response. I was aware that the likelihood of this occurring would be limited, based on the proposed operation of the draw down rate and existing consent limits (i.e. how the draw down rate increase is likely to be employed, typical operating range etc) . We are trying to understand the 'worst case scenario' and what effect this would have on the existing values of the lake/river. If in the 'worst case scenario' effects would be limited this would provide some clarity for the extent of effects at lesser scenarios. I appreciate the advice that quantifying what that effect will look like is likely to be resource heavy/time intensive and that, at this point, it could be considered disproportionate to the potential for this occurrence.

I will forward your response onto Dr Booth and we will take it into consideration.

If Tony were able to simply provide any additional quantitative details on likelihood of occurrence/duration extent that would be helpful.

Kind regards,
Natasha



Natasha Pritchard
PRINCIPAL CONSENTS PLANNER

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From: Will Nicolson <will@landpro.co.nz>
Sent: Thursday, 23 September 2021 1:55 p.m.
To: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Cc: Tony Jack <tony.jack@pioneerenergy.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Natasha,

You are correct in that theoretically lake levels can remain lower for longer under the proposed increased drawdown scenario. As you're also aware, under the proposal lake levels would still remain within the consented baseline (i.e. minimum operating lake level will remain 679.9 masl). Additionally, as we've indicated in previous responses, drawdown above the currently consented 0.2 m/week is unlikely to be exercised all the time, and in all likelihood drawdown would only come close to the proposed 0.4 m/week for a short period of any given year. One other element worth considering is the fact that there would likely be an even smaller period of time within which the lake levels might drop below the typical operating range of up to ~2.5 m below dam crest, and that this might not even occur every year. This is without even taking into account natural lake level lowering in times of drought.

Thus we must put any request for additional information on effects of achieving lower lake levels for longer into the above context. Based on the above, and on the considerable amount of information and effects assessments undertaken to date, I don't consider that a slightly longer duration at lower lake levels would significantly adversely impact natural and human use values associated with Lake Onslow or the Teviot River. Providing quantifiable scenarios of effects based on average rainfall data, lake depth data, draw down rates, etc would be beyond the scope of the application on this basis, and would require considerable time and resources to develop an acceptable model that would provide any reliable estimates or scenarios.

I will leave Tony to respond to your requested clarifications in your 10.27 a.m. email when he can (he is away from the office at present).

Regards,
Will

Will Nicolson
Scientist/Resource Management Planner



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From: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Sent: Thursday, 23 September 2021 11:45 AM
To: Will Nicolson <will@landpro.co.nz>
Cc: Tony Jack <tony.jack@pioneerenergy.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Will/Tony,

One additional question. I was not going to pursue this as your technical advice to date has been that proposed change will not increase the duration that the lake is at lower lake levels as this is a function of rainfall inputs. However, Dr Booth did find the following:

"The summer/winter operating regime of the river is unlikely to change significantly from what was experienced historically, pers com A Jack, PEL. The proposed variation will allow PEL to maintain higher flows in the river in dry years by not placing as much restriction on the amount of water that can be released as the reservoir level lowers. The current consent effectively restricts the amount of water that can be released in late summer. **It may mean that lake levels remain lower for longer than at present if rainfall does not eventuate to refill the lake.** This should not result in any change compared to recent historical lake levels as it does not equate to more shoreline being exposed to wave action but simply a different section of shoreline."

My thought process is as follows:

The increase to the seven day draw down rate will mean that the lake will get to lower lake levels quicker (when the draw down rate is employed) and that means if there is no change to the timing of rainfall inflows (which there will not be as the applicant has no control over that) the lake could be at a lower level for longer than currently (because it will have got to the lower point sooner and up to 50% faster than otherwise). It would be helpful for some quantifiable scenarios to be provided based on actual data (rainfall and lake depth and comparing different draw down rates) so we can understand the likely extent of this increased duration in different years. Can you then consider and assess what such an increase in duration at the lower lake levels will have on the lake (e.g. more exposed lake bed for a longer period, less fishable water) and what effects this change could have on the key natural and human use values associated with the lake including providing any update to your technical assessments to incorporate this. (e.g. how would a longer duration at lower lake levels effect access/angling locations, safety, dust generation potential etc).

Much appreciated,
Natasha

From: Natasha Pritchard
Sent: Thursday, 23 September 2021 10:27 a.m.
To: Will Nicolson <will@landpro.co.nz>
Cc: Tony Jack <tony.jack@pioneerenergy.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Mörena Will and Tony,

We are nearly there. We have few final questions. These are to ensure our understanding is correct and aligns with other information provided to date.

1. The proposed change sought is related to the draw down of the lake over a seven day period. Tony, you have commented that what happens within the seven day period at the short term (hourly/daily) basis is not a relevant consideration as this is not the draw down period consented i.e. there are no constraints on the consent holder operating how they choose within a seven day period provided the seven day draw down rate is not exceeded. Dr Booth is cognisant that it is any changes to the lake in the short term (i.e. changes on an hourly basis) that are most relevant to recreational users of the lake; these being the key parties who could potentially be affected by the change. Her question is whether the lake level will go up and down as the outflow goes up and down during a seven day period? My understanding is that the short term variability in outflows will not create a lake level fluctuation (unless there were significant inflows?) but that the short term variability in outflows will change how quickly the lake is drawn down (recognising that within the parameters of the lake at any point in time i.e. lake volume, depth below crest, rate of take, the instantaneous rate of drawdown will not change from currently). What would be helpful to clarify in my head is whether the draw down rate change will modify the likely outflow regime from what occurs currently (I understand that this is what is proposed as the average sustained outflow over the seven day period will increase and this will be because there are changes to the maximum outflows at different points in time over the week). What I am seeking to understand is whether this is consequential or not in terms of effects on any users. The change in the short term operating regime will be an outcome of the change in the weekly draw down rate and therefore the effects that this has on short term lake behaviour is a relevant consideration. The below is my attempt at contemplating the issue. The numbers are fictional and not based on any data. They are more about conveying the idea/issue. My understanding is that the change to the weekly draw down rate will change how water is taken during a seven day period (this will be higher on average so there will be increased draw down on an hourly basis potentially?). I am trying to understand the quantum of this effect for users of the lake. Happy to have some more realistic examples/scenarios provided to explain this and/or a worst case scenario presented.



2. It would be helpful to have the 'no change in instantaneous draw down' scenario run at the lower lake levels (e.g. 3, 4 and 4.5 m below the crest) and the results provided. We appreciate this is theoretical as it is based on a 6 cumec outflow but it does then provide the full range of scenarios and considers the low lake level situation.

My proposal to ensure we keep the process moving is to send my s95 report off for legal review today. The legal questions I have will not change based on the response to the above and the final audit review from Dr Booth (although both of these will be vital when I have received the legal review). Once we hear back from you (and I acknowledge and appreciate your speedy responses to date), I will forward those to Dr Booth and ask her to finalise her report. Ideally early next week I will have reviews back from Dr Booth/legal and I can have the draft s95 with you by the end of the week (however this may depend on the timing of the legal response and whether that requires significant rewrite/consideration). I will keep you updated.

Kind regards,
Natasha



Natasha Pritchard
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-----Original Message-----

From: Will Nicolson <will@landpro.co.nz>
Sent: Tuesday, 21 September 2021 2:57 p.m.
To: Tony Jack <tony.jack@pioneerenergy.co.nz>; Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi both,

Thanks Tony for providing your comments again on the audit. I've very quickly just screen shotted those parts of the audit report that we originally commented on and pasted them into a Word doc, in case that makes them more palatable to your software. May be a double up of info as a result - see attached.

Re: RMA s42. My understanding is that this only provides exclusion of info from public disclosure where it would either cause offence to iwi or is a trade secret/would undermine a party's commercial standing. I don't think we can tick either of these boxes, therefore if s35(5)(g) truly trumps LGOIMA then we won't be able to provide the recreation assessment. That's a shame, but not much more we can do by the sounds of it.

Regards,
Will

-----Original Message-----

From: Tony Jack <tony.jack@pioneerenergy.co.nz>
Sent: Tuesday, 21 September 2021 2:13 PM
To: Natasha Pritchard <natasha.pritchard@orc.govt.nz>; Will Nicolson <will@landpro.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

I have requested the report from the Onslow Battery project and expect a response this week.

It is certainly my understanding that for it to be provided there would need to be some assurance that it not be made public.

I do struggle to comprehend how a few 4wds and dirtbikes can be affected by a minor change to the operations of a lake to even warrant being considered. I am pretty shure they are not amphibious

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Development Engineer

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-----Original Message-----

From: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Sent: Tuesday, 21 September 2021 1:57 PM
To: Tony Jack <tony.jack@pioneerenergy.co.nz>; Will Nicolson <will@landpro.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Tony,

Thank you for the prompt response.

We are seeking to clearly understanding the implications of the proposed change on how the lake behaves recognising the operational levers. We recognise and appreciate this requires a level of technical expertise in this field and our questioning has been to provide clarity on our understanding where we are not experts. We note that this understanding is one that interested parties and decision makers are also likely to seek. We are hoping to resolve this now so that there can be confidence around the impacts of the change and to enable the effects of the proposed change to be accurately identified and assessed.

I have forwarded your comments onto Dr Booth and I will await her revised report. If you could confirm whether you are likely to seek to have the Recreation report included as part of the application as soon as you are able to that would be appreciated (i.e. whether you will provide some documentation around s42 of the RMA). If such a document were part of the application this would be relevant for Dr Booth to consider before she finalises her audit report.

Kind regards,
Natasha

-----Original Message-----

From: Tony Jack <tony.jack@pioneerenergy.co.nz>
Sent: Tuesday, 21 September 2021 12:08 p.m.
To: Natasha Pritchard <natasha.pritchard@orc.govt.nz>; Will Nicolson <will@landpro.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Natasha

I have made comments on the word document.

I am concerned that there appears that have been a significant amount of time in reviews, correspondence and corrections due to an inability to grasp basic concepts

Tony Jack
Development Engineer

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-----Original Message-----

From: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Sent: Tuesday, 21 September 2021 10:36 AM
To: Will Nicolson <will@landpro.co.nz>
Cc: Tony Jack <tony.jack@pioneerenergy.co.nz>
Subject: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Will/Tony,

Dr Booth has reviewed your comments on her technical audit. We reiterate that the intent of your review was to confirm our technical understanding of the effects on the operating regime as a result of the proposed change. There were a number of comments that were a little difficult to understand (due to the challenges with marking up a pdf). There were also triangle inserts but no obvious comments in the [Effects of the lake from the proposed change/rate of drop of lake level] section. Are you able to confirm whether there are any comments associated with those inserts? Dr Booth has updated her review based on her further understanding of the proposal and implications that the proposed change will have on the

operating regime. She has marked her changes up in red in the attached Word document and added questions in yellow highlights. Are you able to track change any responses so we can have clarity about the applicant's technical understanding of the effects of the proposed change. As noted above and to ensure future clarity for all, your comments are not determinative will be taken into consideration by Dr Booth (along with consideration of all the information we have been provided to date about the proposal). Dr Booth will formalise and finalise her technical opinion on effects based on her audit of the application. This will then be evaluated and considered by myself in my assessment of environmental effects for the s95 report.

In terms of the recreational review document and the ability for it to be publicly excluded if were lodged as part of the application, I have been advised that LGOIMA is subject to any other enactment that authorises or requires official information to be made available. Under s35(5)(g) of the RMA, Council is required to make available "records of all applications for resource consents received by it". However, s42 of the RMA can provide protection of sensitive information. For Council to consider the issue under s42, can you please provide a supporting document that outlines the relevant parts of s42 that apply and provide reasons that support the recreation document being considered sensitive information and publicly excluded in accordance with the provisions in s42 of the RMA.

Let me know if you have any questions regarding the above.

Ka mihi,
Natasha

-----Original Message-----

From: Will Nicolson <will@landpro.co.nz>
Sent: Monday, 20 September 2021 2:57 p.m.
To: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Sounds good, thanks for the update Natasha.

-----Original Message-----

From: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Sent: Monday, 20 September 2021 2:30 PM
To: Will Nicolson <will@landpro.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Will,

A quick note to let you know we are exploring this to see if there is an ability for this report to be lodged and considered in the consent process on a publicly excluded basis. I agree that it would be helpful supporting documentation for the application.

In terms of a more general update, Dr Booth is reviewing your comments on her audit report today and is planning on preparing an updated version that recognises the comments. We have a few clarification questions about some of the comments (which may be a result of the challenges of making track changes on the pdf). I will send it through when I receive it.

I'll hopefully get back to you on the above two points shortly.

Thanks,
Natasha

-----Original Message-----

From: Will Nicolson <will@landpro.co.nz>
Sent: Thursday, 16 September 2021 3:49 p.m.
To: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Natasha,

Realise you're away till Monday so no worries if you don't get to this till then. To keep things brief, we may have access to a recently completed recreational assessment at Lake Onslow as part of the battery project. I think that this could supplement what we've already provided on this topic very nicely, however it would only be provided under the condition that it wasn't made public.

Is there a way for us to provide it to you for application assessment purposes without it being accessible via public information request? Section 7(2)(c) of LGOIMA seems relevant in this instance: "protect information which is subject to an obligation of confidence". There would possibly be some complications on how you could comment on/reference parts of that assessment if it wasn't officially public, however I suspect it would still be beneficial to your assessment.

Thoughts?

Thanks,
Will

-----Original Message-----

From: Will Nicolson
Sent: Wednesday, 15 September 2021 8:49 PM
To: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Sounds good, thanks Natasha

-----Original Message-----

From: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Sent: Wednesday, 15 September 2021 5:41 PM
To: Will Nicolson <will@landpro.co.nz>
Cc: Tony Jack <tony.jack@pioneerenergy.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Will/Tony,

Thank you for the clarification. I have forwarded onto Dr Booth for her consideration.

I have sought advice from my Manager on a timeframe for the legal review and will update you once I hear from her.

Kind regards,
Natasha

-----Original Message-----

From: Will Nicolson <will@landpro.co.nz>
Sent: Wednesday, 15 September 2021 4:59 p.m.

To: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Cc: Tony Jack <tony.jack@pioneerenergy.co.nz>
Subject: RE: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Natasha,

Tony and I have provided some feedback on Section 1.5 and Q5 of the audit report, and a response to one of the auditor's comment on mahika kai gathering assessment in the same report.

Regards,
Will

Will Nicolson
Scientist/Resource Management Planner

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-----Original Message-----

From: Natasha Pritchard <natasha.pritchard@orc.govt.nz>
Sent: Wednesday, 15 September 2021 12:50 PM
To: Tony Jack <tony.jack@pioneerenergy.co.nz>; Will Nicolson <will@landpro.co.nz>
Subject: Pioneer Energy Limited -18.004 - Revised (revised) audit report on amenity values

Hi Will and Tony,

Please find attached the revised recreation audit report from Dr Booth that I have received this morning. Before I finalise my recommendation and send it off for peer review/legal review, I would like to give you the opportunity to review this report and provide any additional information.

I am particularly interested in the applicant confirming the statements at the beginning of the report (section 1.5) as these are the basis for considering the effects. They generally align with my understanding. If these are incorrect or do not accurately reflect the activity and effects, can you please advise. If you can explain the reasons for any corrections that would be helpful.

I note from previous correspondence that you are not proposing to provide any further information relating to the Recreation Report and the effects on the activity of mahika kai gathering prior to a notification decision being made. However, please advise whether you would like to comment/provide more data in relation to the last two points of Q.5.

Kā mihi,
Natasha

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