

**ENVIRONMENTAL PROTECTION AUTHORITY
BEFORE AN EXPERT CONSENTING PANEL**

**IN THE MATTER OF THE FAST-TRACK APPROVALS ACT 2024
AND IN THE MATTER OF AN APPLICATION BY MATAKUNUI GOLD
LIMITED UNDER SECTION 42 OF THE FTAA
FOR THE BENDIGO-OPHIR GOLD PROJECT
APPLICATION NO: FTAA-2507-1089**

Hearing: Held in Monarch Room, Willeston Conference Centre,
11-15 Willeston Street, Wellington Central

Date: 9 June 2026

Panel: Hon Matthew Muir KC (Chair)
Gina Sweetman
Phillip Barry
Roger MacGibbon (via AVL)
Peter Kensington

Counsel: Joshua Leckie and Mia Turner, Lane Neave, for the Applicant
Mike Holm and Nicole Buxeda for Kā Rūnaka
David Randal for Otago Regional Council
Rob Enright and Jen Vella for Environmental Defence Society
Sally Gepp for Sustainable Tarras

Experts: Rhys Girvan for Applicant
Nigel Parker for Otago Regional Council
Bridget Gilbert for Sustainable Tarras
Stephen Brown (via AVL) for Central Otago District Council
Anne Steven for Environmental Defence Society
Dr Alayna Rā (via AVL) for Ka Runaka

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1 **Mr Muir:** Good morning and welcome to this resumed hearing of the application by
2 MGL. Today is the first of what are nine concurrent expert hearings, which will run
3 through till the end of next week, with some flexibility to deal with various witnesses
4 who are otherwise unavailable at different times in that nine day period.

5 I think that probably all of you, other than possibly the experts, have been introduced
6 to the panel before. This is a sub-group of the panel, which is one of seven, and today
7 we have sitting with me on my left, Peter Kensington – known to many of you for
8 the very discipline that is before us today, landscape architecture. Ms Gina
9 Sweetman, immediately to my right, a very well known experienced planner and
10 hearings commissioner. I should have indicated also that Peter is likewise a very
11 experienced hearings commissioner. And to my far right is Phil Barry. He is the
12 economist on our panel. We have an additional member of our panel, who is
13 participating live from some exotic northern hemisphere destination, and that is
14 Roger MacGibbon. Good morning Roger, where are you today?

15 **Mr MacGibbon:** Good morning. I'm actually back in New Zealand now thanks. Only
16 just though, and suffering from jet lag badly, but I'm here.

17 **Mr Muir:** Very good Roger. Thank you very much for making yourself available
18 today. And I should point out of course that the proceedings today are not only being
19 simultaneously broadcast on the internet so that they can be followed by the public
20 there, and not only is that recording going to be made available for those unable to
21 participate today but who wish to review the day's proceedings at a later time, they
22 will be able to do so on the EPA's website. Additionally, the proceedings will be
23 transcribed by professional court based transcribers. Likewise, once that has been
24 proofed, the transcription will be available on the EPA website.

1 For those commissioners who, for various reasons, are unable to attend today live or
2 in person, you can be assured that those commissioners will be viewing one, other or
3 both of the live proceedings or the transcript at their convenience and before we start
4 the deliberation phase of this panel's work.

5 There are a couple of little health and safety messages that I've got to convey. The
6 facilities are around by the lifts. You'll see either side of the lifts. It sounds like the
7 southerly is starting to brew. We're expecting swells to envelop downtown
8 Wellington at any moment. The same doors that access the lavatories are the
9 emergency exits from the building. Don't be deterred by what look to be
10 impenetrable locks on those doors and don't worry, you will be able to get access
11 back through those doors after they're shut. There is no code operating on them.

12 I see that we have one representative of the press here today, he's been taking some
13 photos. Will they be all the photos that you now intend to take or some further ones
14 during the day?

15 **Press:** Yeah, no, I think that's about it, really.

16 **Mr Muir:** Thank you so much. We have other press that are online and as we
17 indicated in respect of the hearings, the simultaneous broadcast may of course be
18 referenced for accuracy purposes. If there's any intention to replay audio in any press
19 report, then we request that an application be made to the panel and we will give you
20 a prompt response in that respect.

21 Now, in advance of this first of the concurrent, or what they colloquially call "hot
22 tub" hearings, I was appropriately asked by the Environmental Protection
23 Association to provide as much as I could some structure for today and the
24 forthcoming hearings. And I did so initially in a Minute to the panel, probably about
25 10 days or so ago, and then yesterday we repeated that essential structure in advice
26 more immediately focused on today's hearing. And you will have noted that, at the
27 bottom of that advice, I observed that necessarily concurrent, or hot tub hearings,
28 require some element of adaptability and flexibility, which the panel expressly
29 reserved. I've been walking round the room in the half an hour before the hearing
30 has commenced and speaking with counsel and with the experts who are here in
31 person today, to advise that the panel has conferred this morning, and in light of the
32 further JWS which was received late yesterday, and indeed, the earlier JWS we
33 reviewed again for the purposes of this hearing, that the essential structure which I
34 had mapped out is not one which fits particularly well with the product of those two
35 – well, three to four days – of JWSs for the landscape experts. We observe that there
36 is a great deal of commonality between the experts on many issues, and obviously,
37 some areas of difference. But to move sequentially through what is now 40 pages or
38 more, 50 pages, of JWS, highlighting each little observation which didn't align with
39 that of others is not, we think, the most productive way forward.

1 So, for those experts who are here in person, I indicated, and now for those who are
2 online, and good morning Dr Ra, you're available there? I can't probably at this
3 distance see you there on the screen, but we have Dr Ra with us? Good morning.
4 Good morning. How are you? And also Mr Brown? Yes. Good morning, Mr
5 Brown. So this is now news to you, unfortunately, whereas the other panel experts
6 here have had 15 to 30 minutes of notice of this. In the flexibility that I expressly
7 reserved, I now exercise our right to essentially jettison the framework that we had
8 indicated. And we're going to adopt a new framework for today's discussions. And
9 we're going to start, if I may, by working with the experts online and in person to
10 essentially establish an agenda for today. Because we surmise that we're probably
11 down to really only four or five critical issues which separate you. So for Dr Ra and
12 Mr Brown, I'm very happy that we just take a five or 10 minute adjournment now, if
13 you request it, so you could reflect on what you see more holistically as being the
14 issues that separate the experts today. So that we can establish that framework, which
15 we're actually going to pop on a whiteboard here with the five or six, or whatever it
16 might be, topics that we can distil from this and then we will work sequentially
17 through that agenda.

18 Perhaps, unless you would like us to break now, I could start by working with the
19 experts that we have in the room here and then come to you a little later in the process
20 while you've had an opportunity to think about it. And if that worked, so be it. If it
21 doesn't, you just indicate that you'd like a little bit more time to reflect on that and
22 we will do so. Is that alright by you?

23 **Mr Brown:** Yes.

24 **Mr Muir:** Mr Brown, is that alright?

25 **Mr Brown:** Yes it is, absolutely fine.

26 **Mr Muir:** Right. And I'm assured that my fellow commissioner, Ms Sweetman, has
27 a fine written hand and she has offered to be our scribe for the purposes of getting
28 this agenda settled. So I'm going to just start at – and this perhaps is one respect only
29 in which I am adhering to my original plan – I'm going to start with the applicant's
30 expert, Mr Girvan, and ask – I'm not going to write anything down on the board yet
31 because I think we're probably going to just have to have a discussion first – and just
32 tease out with you please Mr Girvan, what you see as the critical issues that we need
33 to be discussing today.

34 Good. There's somebody in the room.

35 [inaudible]

36 **Mr Muir:** Have we got a microphone there. Let's see if we can just move the
37 microphone to Mr Girvan so that we can all hear you. Thank you very much Mr
38 Girvan.

1 **Mr Girvan:** I have had a brief discussion in terms of what your question was with some
2 of my colleagues here and I think we've agreed on the first three at least.

3 **Mr Muir:** Excellent.

4 **Mr Girvan:** Let's go with that, but we'll develop that. But I'll run through them. I
5 have five here. And the first being the significant effects and where they occur, and
6 that's the differences in the level of effect between the broader ONL, the Bendigo
7 Tarras Basin and the focus area, being the central western part of that ONL site. So
8 I think that's the first key question. And we did address that within the joint witness
9 statement yesterday.

10 **Mr Muir:** How would you like that put on the board?

11 **Mr Girvan:** So it would be the differences in level effects between the broader ONL –
12 apologies – the difference in level of effect between the Dunstan Mountains ONL
13 and the focus area. And to clarify the focus area, perhaps I should add to that the
14 central western Dunstan Mountains.

15 **Mr Muir:** Yes. So, if I can just hop into it. This, among other things, will capture
16 this issue around your belief that Mount Moka is the more appropriate southwest
17 reference point?

18 **Mr Girvan:** That's correct, yes. So within the joint witness statement, the first joint
19 witness statement, I referred to Mount Moka being that southwest edge of the central
20 western area. So prior to conferencing the second joint witness statement, I prepared
21 that map for the purpose of clarifying where that southern boundary was.

22 **Mr Muir:** Right. And we will reference in that context the various maps that have
23 been appended to the JWSs?

24 **Mr Girvan:** Yes, correct.

25 **Mr Muir:** Right. Okay. That is fine.

26 **Mr Girvan:** And one further clarification. I haven't, in terms of the differentiation or
27 the mapping, shall we say, of that central western area - - -

28 **Mr Muir:** Can you speak up a little bit? Because I think I can hear you fine but I'm
29 just a bit concerned about those with the balance in the back of the room. I think that
30 your trouble is there your cord has been caught around there.

31 **Mr Girvan:** There we go, that's better.

32 **Mr Muir:** That'll solve the problem.

33 **Mr Girvan:** Thank you. To clarify, that's within that map. It refers to my position on
34 that central western scale. And it was the very rough version of where we landed at
35 the first joint witness conferencing. So we haven't discussed what that exact
36 boundary is as a group.

37 **Mr Muir:** So you'll come back to that in greater detail.

1 **Mr Girvan:** Yes. Number two, and this is one that I've conferred with my colleagues
2 here, but the benefit and effectiveness of rehabilitation. That would be a good way
3 to phrase that I think.

4 **Mr Muir:** Yes.

5 **Mr Girvan:** Number three. And we didn't really land exactly on this, in terms of where
6 this would, but I do think it's in relation to the conservation covenant and the
7 implication of the revocation and expansion of that covenant.

8 I have two others that I haven't discussed yet but ones I think are material, and the
9 fourth would be the consequence of visual effects. And this is where we've provided
10 an understanding of what that is, but how that then affects the weighting of the
11 broader effects on the Bendigo Tarras Basin. So the consequence of visual effects to
12 the effects at the Bendigo Tarras Basin scale, which I haven't conferred with my
13 colleagues yet, but that's one I think we might want to discuss.

14 And then last but not least, it would be the cultural landscape effects.

15 **Mr Muir:** Yes. I'm going to suggest that we put those three, and provisionally four
16 and five, on the board now.

17 **Mr Girvan:** I should clarify, apologies, the cultural landscape was one that we have
18 mentioned, so that I think we'd all agree - - -

19 **Mr Muir:** Yes.

20 **Mr Girvan:** So it's not quite provisional.

21 **Mr Muir:** It's perfectly obvious, yes. Perfectly obvious. So let's get those four that
22 are settled between the experts who are present on the board and a provisional fifth.
23 And then what we're going to do is I will engage with Mr Brown and Dr Ra and we
24 will see to what extent those four get buy-in, what additional topics they think are
25 necessary. And then I've, of course, got to come back to the other panel members
26 too - - sorry. Come back to the other experts present to give their additional topics.
27 Right.

28 [Ms Sweetman writes up the board]

29 **Mr Muir:** Well, you really came up to brief, I can read it all. So items one, two, three
30 and five are expected to have buy-in from all of the experts who are present today.
31 Dr Ra and Mr Brown, could I address you please. Do you accept that items one, two,
32 three and five are at a relatively general level of abstraction, significant areas of
33 difference between the experts and appropriately examined today? Dr Ra? You're
34 on mute.

35 **Dr Ra:** Can you hear me now?

36 **Mr Muir:** Yes, we can. Thank you.

37 **Dr Ra:** Sorry. I've just discovered there are two mute buttons.

1 **Mr Muir:** Aha, two mutes!

2 **Dr Ra:** Yes, Mr Chair, I'm very happy. Yes, I can hear you. Thank you. Look, I
3 think I agree that there are those critical topics that Ms Sweetman has written up on
4 to the board. I would note that under cultural landscape effects, that I believe that
5 these actually cross over across all of these aspects that have been tabled. And I'd
6 also like to note that there are two particular aspects within cultural landscape effects
7 that would need to be addressed. One of those is the transparency and reasoned
8 explanation of addressing cultural effects, and the second is the permanent
9 destruction of the wahi tipuna and severance of the ancestral movement system.

10 **Mr Muir:** Yes. These are points you have made very cogently in the expert
11 conferences and are reflected in the JWSs. That's completely unsurprising and I'm
12 sure as we get into item five, the cultural effects, we'll explore both of those very
13 fully. Right. Dr Ra, any additional topics that you think we need to have on the
14 board?

15 **Dr Ra:** No.

16 **Mr Muir:** No. Right. Mr Brown, are you happy with those – I had originally
17 addressed just number one, two, three and five, but we have got the item four there
18 also. Do you have any problem with any of those issues as the relevant issues before
19 us?

20 **Mr Brown:** Mr Chair, I was scrambling for a piece of paper just as they were being
21 read out by Mr Girvan. I just wonder if you could run through the first three points
22 again please?

23 **Mr Muir:** Yes. So, as they now appear on the board, can you see the board, Mr
24 Brown, or not?

25 **Mr Brown:** No, not at all.

26 **Mr Muir:** I see. That's part of the problem here. Is there any way that electronically,
27 Daya, they could be made available Now? Yes. So, Ms Thomson, without whom
28 none of this process would run at all – but I say that of all our EPA team – she is
29 going to electronically make sure that you get these so they're on your screen as well.

30 So that item one, on the angle that I'm reading them, the differences in the level of
31 effect between the Dunstan Mountains ONL and the focus area. Item two, the
32 benefits and effectiveness of the proposed rehabilitation. Item three, the conservation
33 covenant and its revocation and expansion.

34 **Mr Brown:** Yes.

35 **Mr Muir:** Item four, consequential visual effects.

36 **Ms Sweetman:** Did I get that right, Mr Girvan?

37 **Mr Girvan:** It's in terms of the weighting of effects at the port of Bendigo Tarras place.

1 [inaudible]

2 **Mr Girvan:** So the consequence of visual effects, in terms of the weighting of effects.

3 **Mr Brown:** I think that relates to the relative weighting attributed visual effects alone.

4 **Mr Girvan:** Yes it is. It's a relative weighting. And we have reflected that within the
5 joint witness statement. We talk about it's the – it misses out on the nuances in sort
6 of scale.

7 **Mr Brown:** No, that was just a pop clarification. I think the only issue that hasn't been
8 covered, and remains possibly of concern, is that of night time effects.

9 **Mr Muir:** Okay. Let's add night time effects as number six. And then could I come
10 back now to the other experts who are present, Ms Gilbert, Ms Steven, and Mr Parker.
11 Any additional topics?

12 **Mr Parker:** Not from me, sir.

13 **Mr Muir:** Thank you, Mr Parker.

14 **Ms Steven:** No, I'm quite comfortable. I'm sure others will arise but this will keep us
15 busy for a while.

16 **Mr Muir:** There will be some issues, clearly, as we get into it.

17 **Ms Gilbert:** And, sir, the only clarification is that the level of effect at the various ONL
18 scales, I think part and parcel of that question is, will it remain an ONL.

19 **Mr Muir:** Yes. Could we add in, Gina, on one, just a little line underneath it, can it
20 remain an ONL. Could I just check in now with my panel that we think that we have
21 got the principal topics covered here?

22 **Ms Sweetman:** We'd like to add a sub-clause on two, which is rehabilitation, the future
23 use of the site as well.

24 **Mr Muir:** Of course. Nothing's written in stone and as Ms Gilbert has pointed out,
25 as the day develops other issues will no doubt drop out. This is not meant to be
26 prescriptive in any way, but a final touch point before we start, that we're happy
27 enough with those six topics as a general roadmap for the day's proceedings.

28 The experts in front of me, thank you so much. Dr Ra and Mr Brown?

29 **Dr Ra:** Yes, thank you.

30 **Mr Muir:** Mr Brown?

31 **Mr Brown:** Yes, thanks.

32 **Mr Muir:** Yes. Thank you very much. Right. Well again, to add to the
33 unpredictability of the day, we're not going to start with number one, we're going to
34 start with number five, cultural effects. And I think that the logical thing to do here
35 is for me to – and I now go back to the central framework that I published yesterday
36 – is to – and I'm going to invite comment from each of the experts about this issue –

1 but I think that the logical thing to do in respect of this topic is not to start with Mr
2 Girvan but to start with Dr Ra. Dr Ra, are you happy, in the context of what we said
3 yesterday, to give us, in a statement of perhaps three or four minutes thereabouts,
4 basically an opening statement on behalf of Ka Runaka about these very important
5 issues.

6 **NUMBER FIVE – cultural landscape effects**

7 **Dr Ra:** Ka pai. Yes, very happy to do that. Kia ora koutou. Great to have the
8 opportunity to speak to some of the rights and interests of Ka Runaka regarding this
9 application.

10 There are two key points that I would like to touch on today regarding cultural effects.
11 The first is that there is a fundamental failure to transparently incorporate mana
12 whenua values, contrary to Te Tangi a te Manu, which requires reasoned explanation
13 regarding effects. At paragraph 31 of the JWS, all experts agree effects on mana
14 whenua values are unavoidable, significant, ongoing, and cannot be mitigated. At
15 paragraph 14, all experts also agree the assessment cannot align with Te Tangi a te
16 Manu where te reo Māori input has not been properly integrated. Despite this, the
17 original assessment did not clearly explain how mana whenua perspectives informed
18 effects judgments. And this remains largely undocumented, including in the material
19 prepared during the expert conferencing.

20 This is compounded by the fact that, as set out at paragraph 11 of my evidence,
21 although feedback was provided, the assessors were not afforded the opportunity to
22 review or integrate that feedback prior to lodgement of the substantive application.
23 This is not simply a gap in evidence. This is a methodological failure that results in
24 systemic understatement of effects.

25 Secondly, the proposal will result in the permanent destruction of a wahi tipuna and
26 severance of an ancestral movement system. The evidence is clear that a physical
27 ara tawhito traverses the site. The proposal removes the central portion of that route,
28 resulting in permanent loss at the central western scale and severing wider landscape
29 connections. This is irreversible. Connection to whenua, wai, Mahika kai sites, and
30 whakapapa based relationships will be lost in perpetuity.

31 I draw the panel's attention to paragraph 17 of the JWS, where it is asserted that
32 cultural information has been considered to the extent that it is relevant to landscape
33 effects. In my opinion, the destruction of a wahi tipuna and ara tawhito is not
34 ancillary to landscape effects, it is central to them. To treat such matters to be of
35 contingent relevance precisely reflects the methodological divergence from the
36 opening purpose of Te Tangi a te Manu.

37 In conclusion, the evidence demonstrates that this assessment was materially
38 deficient in its treatment of scale, as will be discussed as point one of the
39 conferencing that has been noted for today's session. It did not comply with the

1 bicultural methodology required by Te Tangi a te Manu and it fails to adequately
2 assess the permanent, unmitigable, effects on mana whenua values. Accordingly, my
3 opinion remains that the proposal results in high to very high adverse effects that
4 cannot be avoided, remedied, or mitigated. Thank you.

5 **Mr Muir:** Thank you very much, Dr Ra. Ms Gilbert, do you wish to be heard on this
6 issue?

7 **Ms Gilbert:** Yes, sir. I would like to speak to it. Given that under this - - -

8 **Ms Sweetman:** Sorry, could we move the microphone to whoever is speaking at each
9 point? Apologies.

10 **Mr Muir:** Yes. And could I just say, given the fact that we are transcribing today's
11 proceedings, if any expert chooses to address a comment made by another expert,
12 could they just introduce themselves so that the people that are transcribing it will
13 know who to align that comment with. Thank you. Thank you, Ms Gilbert.

14 **Ms Gilbert:** Thank you, sir. Yes, I would like the opportunity to address Dr Ra's
15 comments, because I consider, as a landscape architect applying these guidelines to
16 Te Tangi a te Manu, which you've probably read a lot about, I have an obligation to
17 do so. So I accept and acknowledge the concerns raised by Dr Ra. As a non-cultural
18 landscape expert doing this sort of work, I defer to mana whenua and pukanga such
19 as Dr Ra in advising me about what the important things I need to think about are.
20 And, in many respects – and then I have to synthesise that information somehow into
21 my landscape effects assessment.

22 In many respects, sir, this is no different to a lot of other expert input that we, as
23 landscape architects, rely on when we're doing landscape assessments, such as
24 ecologists or archaeologists or heritage experts. You know. I could name quite a
25 list. And we're not experts in that field but we take on board the expert advice from
26 those other disciplines and integrate it into our findings. Now, it can be quite difficult
27 to be transparent about how you've done that. And in relation to my section 53
28 comments, I didn't have access to Dr Ra's information. I have since read it and I've
29 read Mr Ellison's statement of evidence and the cultural impact assessment attached
30 to his evidence. And considered it through the process of conferencing and am
31 confident that whereby effects ratings land has factored in that information. But I
32 haven't had the chance to explain that sort of sequential step.

33 Yes, so that's - -

34 **Mr Muir:** And probably you recognise, for the very reasons you've just identified,
35 one of the issues for the panel. Because when this sort of information is synthesised,
36 as you have called it, into a landscape effects analysis, we have to be very careful
37 that we don't essentially double count these issues. Clearly, we will be coming back
38 to some of the issues. Not the particular one that Dr Ra has emphasised, in terms of
39 the well-established travel route through the Thomson's Gorge area and the

1 permanent loss of it. But in other areas there will be the mana whenua perspective,
2 cultural perspective, whether it be ecology or the disruption of water flows, or many
3 of the other facets which we must consider in the context of this application. Again,
4 there will be very defined cultural objections to it. And we've just got to make sure
5 that in our process we don't – if I could use a shorthand – double count.

6 **Ms Gilbert:** Yes, I understand that. And perhaps it's helpful to clarify the focus of
7 concern that I guess I have particularly taken into account, is the travel route.

8 **Mr Muir:** Yes, yes, absolutely. Thank you very much, Ms Gilbert. Ms Steven,
9 would you like to address on this issue?

10 **Ms Steven:** Very briefly. My view is very similar to Ms Gilberts. I too was not privy
11 to any more information than what was available at the time during my evidence. I
12 suspected that there was a greater depth of value, as expressed by Dr Ra, and I do
13 fully defer to her clarification or articulation of those values inherent in whenua for
14 Ka Runaunga. But it has totally confirmed to me that this is one very important value
15 of the ONL, if you take a western perspective. But it also underscores the way
16 landscape has these deep intangible values that aren't necessarily expressed in
17 tangible things that you can see and measure and touch. It's more about relationships
18 with the land and the way people connect with the land and value it.

19 So it is the reason the landscape is valued, ie, it is a landscape value. You talked
20 about double counting. And I do totally defer to Dr Ra's articulation of that value.
21 But as I said, it does confirm my opinion that it is a very important value, and she
22 has articulated the effects of this proposal on those values, which I accept has a
23 significant adverse effect, along with other major effects. And it also particularly
24 impacts on the covenant as well, geographical area.

25 **Mr Muir:** So this is within the terminology of the RWS. This is our focus on the
26 physical associates of and perceptual elements of that.

27 **Ms Steven:** Correct. And it's both physical in terms of the actual route, as Dr Ra
28 explained, but also that more intangible connection with land, that valuing of the land
29 for the experience of travelling through it, the mahika kai associated with it, which
30 Dr Ra is much better at articulating than I am. But it is more than just a physical
31 route. It's about journeying, I think as the Otago Conservation Management Strategy
32 describes it. Which is journeying both for Māori or mana whenua and also for
33 pakeha.

34 **Mr Muir:** Good. Thank you. Mr Parker, did you want to address on this issue?

35 **Mr Parker:** Only to say that I too recognise Dr Ra as the pukenga of this information,
36 and I concede to her full authority in that. It might be an obvious thing to say, but in
37 terms of the, I think, balancing, weighing, of that information into the wider
38 consideration of landscape effect [inaudible].

39 **Mr Muir:** Thank you. Mr Brown, do you want to address this issue?

1 **Mr Brown:** Not in a meaningful way. I think that the matters covered address the issue
2 of cultural and associative effects very well and in a meaningful way, and I agree
3 with that.

4 **Mr Muir:** Thank you, Mr Brown. So we come then to Mr Girvan, thank you.

5 **Ms Sweetman:** Sorry, we can't hear.

6 **Mr Muir:** You're quite softly spoken, Mr Girvan.

7 **Mr Girvan:** In most environments, that's a plus. So I'll start with accepting Dr Ra's
8 pukenga contributions and those cultural values.

9 **Ms Sweetman:** Sorry, we still can't hear.

10 **Mr Girvan:** Oh, my mic wasn't turned on. There we go, yes. Thank you. Sorry.
11 To start with, it is, yeah, acknowledging and accepting the evidence of Dr Ra's
12 pukenga to understand Ka Runaka's values in this context. So that is accepted and
13 expressed and in the joint witness statement. And it's also accepted in terms of the
14 significant effects on wahi tupuna, which Dr Ra speaks of. And again, that is
15 accepted. It is, in terms of understanding what those cultural values are in this
16 context, I did have limited information to prepare the BML assessment, and when I
17 say that what information was available was taken into account, so I had a cultural
18 values assessment that was prepared by Ngai Tahu, and we had some information
19 from the Ngai Tahu Atlas which expressed the ara te whitō journey kind of context
20 which Dr Ra speaks of. So we understood that.

21 Subsequent to preparing the assessment, I was then provided the cultural impact
22 assessment through the evidence of Mr Ellison, and I've equally read that. So I've
23 understood what the cultural impact assessment discusses in terms of those cultural
24 values.

25 **Mr Muir:** Just to check. Is everyone able to hear the witness? Struggling? Just get
26 a little bit closer.

27 **Mr Girvan:** So that is the basis for which I've understood, in terms of the information
28 provided as part of undertaking the landscape assessment, and we've had the benefit
29 of Dr Ra through the conferencing to understand what that means from a mana
30 whenua perspective. And it is in that context that I accept that there are significant
31 effects within that kind of central western focus area within the ONL. And that's the,
32 from a landscape perspective, I've assessed the consequence of this project at that
33 scale, in that context. And I've come to the view that there's an improvement through
34 the rehabilitation which is provided with this project. However, there are significant
35 enduring effects within that scale. And that is reflective of the cultural effects which
36 have been expressed at that scale in terms of what that means. So there is an
37 acknowledgement within the assessment, and taking into account that aspect of
38 landscape, what it means, that there will be enduring significant effects at that scale.

1 **Mr Muir:** Particularly so of the Rise and Shine pit and the disruption to the wahi
2 tupuna.

3 **Mr Girvan:** Exactly. And that is within that central western ONL focus area that I've
4 acknowledged that affects it. That's probably the limit of where I've got to on that.

5 **Mr Muir:** Thank you very much, Mr Girvan. Right. So the process that we're now
6 going to embark on is to invite my panel members to question any one or more of the
7 experts about any aspect of this topic. And then, based on the nature of the responses,
8 it may be that I invite other experts to contribute to that discussion. This can become
9 as dynamic as we like. I already have a very clear sense that all of the experts before
10 me are completely professional and that a respectful professional dialogue can be
11 conducted at any time during the course of this process without derailing the process.
12 But if there was any suggestion that it was, then I no doubt will intervene and try and
13 put it back on the rails. So, simply because a question is directed to one or more
14 members of the experts, don't feel that you can't contribute to that topic if you have
15 something useful to add to it. Just respecting the professionalism of the environment.
16 I'm going to pass now to my fellow commissioners. Mr Kensington, did you have
17 any specific issues arising out of this topic?

18 **Mr Kensington:** Yes, thank you, Mr Chairman. I have two, and firstly to all experts,
19 thank you for the efforts that you've put in preparing the joint witness statements. It
20 was a bit of a mammoth job for you all and you've done a great job in giving us
21 further information. The two questions that I have, one is for Dr Ra and one is for
22 Mr Girvan, and potentially both questions could be answered by the both of you.

23 But the first question for Dr Ra is the failings that you are suggesting of the Boffa
24 Miskell assessment, are they fundamental and should we be starting again, or are we
25 at a point now where we have the information before us and the assessment findings,
26 in particular that you have reached and everyone else has agreed with, are where
27 we're at and we don't need to go back?

28 **Dr Ra:** Thank you, Mr Kensington. I think that's a really important question. You
29 will recall from our first hearing that I did believe that the original assessment was
30 materially deficient. We have had comprehensive conferencing, four days' worth I
31 think we're at now, through which we have discussed many of these matters. I stand
32 that in the assessor has not quite fully grasped the gravitas of the bicultural foundation
33 of Te Tangi a te Manu, and that this is a fundamental lens which is lacking in the way
34 that they understand landscape effects. This is noted, as I mentioned in my opening,
35 in paragraph 17 of the JWS, where Mr Girvan states that cultural values are only
36 considered to the extent that it is relevant to landscape effects. And I think there is
37 real concern raised in that statement to how critically weighted or not critically
38 weighted the destruction of the wahi tipuna is in understanding landscape effects.

39 In saying that, where we have arrived in the expert conferencing is at a point where
40 the correct and appropriate scale has now assessed some of these effects. So the scale

1 that was referred to earlier, known as scale C throughout the documentation of the
2 JWS, and particularly in table 1, where the central western Dunstan Mountains has
3 been assessed. And I am in agreement that Mr Girvan is much closer now to
4 understanding effects on cultural values at that scale. And that the other experts who
5 have participated in this process have also fully grasped that concept. I think that is
6 shown now in the degree of weighting of effects that is shown for scale C.

7 But I would say, sorry, just to conclude that, I would say that across other scales,
8 scales A, B and D, this may be still not have been given thorough consideration.

9 **Mr Muir:** Mr Girvan, do you have any response to that?

10 **Mr Girvan:** Yes, I do. And it is responding to how the assessment has been undertaken
11 in terms of understanding the importance of the cultural dimension, the bicultural
12 dimension, within the context of what landscape is. And in seeking to understand
13 that, it has sought to draw on what information has been available and what
14 understanding has been available at the time. And in terms of Te Tangi a te Manu
15 and what's required through that assessment framework, there was work done to
16 understand what that means in this context.

17 I accept that that isn't the complete picture. And through this process we've had the
18 benefit of Dr Ra's contribution, as a pukenga and understanding what that means.
19 And then given that, the assessment has been refined with that understanding. I think
20 the point that Dr Ra makes in terms of taking into account those values, insofar as
21 they're relevant to landscape effects, I do consider it is a synthesis process that we're
22 faced with assessing landscape effects. And in that context, it is a process which has
23 its own place. And it's about layering those values together, as the best we can
24 understand them, to come to the point of what a landscape effect is. And I feel in
25 that process, we must work through understanding and alongside mana whenua's
26 understanding of those values to the best we can, but it's not then to diminish the role
27 of a landscape assessment and layering it together to understand what that means in
28 terms of a landscape effect. And that's the process I feel that the BML assessment
29 has set out to do and through conferencing it, the understanding of landscape effects
30 has continued to unfold.

31 **Mr Muir:** If I could just summarise that. We're saying that in your defence, when
32 Dr Ra is critical of you for saying that cultural values are only relevant to the extent
33 that they inform landscape effects, you are saying that throughout the process you
34 have in that context a defined landscape effects so as to include the wider landscape
35 effects that are recognised by Te Tangi a te Manu, but that your process, the process
36 of doing that, has been further refined and assisted by Dr Ra's input. Is that a fair
37 summary?

38 **Mr Girvan:** It is. And it does come down to the purpose of Te Tangi a te Manu as well,
39 in terms of seeking to align with that te awa Māori and te awa Pakeha world views.
40 And it's through that alignment that the assessment process has sought to manage

1 those landscape outcomes. And that's the reason that a landscape assessment is
2 undertaken. That's the purpose of doing that work under Te Tangi a te Manu. So it's
3 engaging with that understanding to the best of the assessor's ability to include that
4 alignment within understanding the outcomes or the implication for landscape
5 outcomes.

6 **Mr Muir:** Mr Kensington, is there any follow up on that that you wish to explore?

7 **Mr Kensington:** Well, only, sir, my second question, if I may - - -

8 **Mr Muir:** Yes.

9 **Mr Kensington:** - - - sort of launch into that. And that's Dr Ra has mentioned paragraph
10 17 of the first joint witness statement and I'm keen to explore with Mr Girvan the last
11 sentence of that paragraph 17, in the context of all experts agreeing that there will be
12 significant adverse effects. And we're turning to now look at, Mr Girvan, you
13 mentioned conditions. And you're saying that Māori cultural values can be included
14 through conditions. I'd like to explore that sentence with you please. What do you
15 mean by that?

16 **Mr Girvan:** Yes. So again, it comes to this seeking to align these world views in this
17 context. And we're dealing here with a wahi tupuna which will have significant
18 effects. It's not for the landscape assessor to speak on behalf of what those values
19 are and what the effects will be. It's for mana whenua to speak of what those effects
20 will be. And it's through that lens and understanding that, should consent be granted,
21 that would be the mechanism which I consider is entirely appropriate, that the
22 understanding of those values and what that means for landscape outcomes can be
23 worked through in a way to seek that alignment between those te awa Māori and te
24 awa Pakeha world views.

25 **Mr Kensington:** I guess the back story behind the question is if there are going to be
26 significant adverse effects and they're permanent and we're destroying cultural
27 values, can that approach of working with mana whenua to, in the detailed design
28 and rehabilitation of this landscape, is it possible to achieve what you're saying there
29 or not. And I'd be interested in Dr Ra's views on that as well.

30 **Mr Muir:** I'll come back to Dr Ra in a moment or two about it, but I think, perhaps
31 from my perspective, the issue is here, is a proposition that you'll make the best of a
32 bad lot. Because you can't undo the primary objection, which is the disruption to the
33 wahi tupuna, but that otherwise the intention is that in the context of rehabilitation
34 and implementation of the proposed management conditions, the development align
35 as much as possible with Māori cultural values. Is that where we're at?

36 **Mr Girvan:** Well, it is through the understanding that there are significant adverse
37 effects on that aspect of landscape. And all the experts agree through conferencing
38 that there are those significant effects. I think – I'm not resigning from that, it's what
39 I'm stating. I guess I'm understanding that that's part of landscape. And it's a similar

1 thing in terms of other aspects of landscape. There will be effects on parts of the
2 landscape which will endure, and that is a consequence of this application. I think
3 where that gets to is the process of understanding what those values are and how they
4 need to be managed, and what the implication for that through that process remains
5 a matter for mana whenua to speak of. As a landscape architect, it's my role to
6 understand that. It's not my role to diminish what that means. And in terms of
7 assessing where I've got to, I've understood that. I've understood the scale of where
8 that sits. I've understood that it's limited to – well, not limited. It's defined within
9 the central Western [inaudible] and I've understood that and acknowledged what that
10 means in terms of the significance of effects for this project at that scale. And it's
11 through that I then come to what does that mean in the context of what the Dunstan
12 Mountain development allows for in its entirety. And I accept that they're different
13 things and I've assessed it that way.

14 In terms of the specific significance of effect, I remain that it is a matter for mana
15 whenua to speak of, and it is acknowledged.

16 **Ms Sweetman:** And if I can just jump in there, Mr Girvan. How would you see your
17 recommending conditions can sort of start to address some of these things. What
18 would you see that looking like?

19 **Mr Girvan:** In terms of its relationship, so it's an understanding of what that means in
20 this context. In terms of landscape, that's where my starting point is in terms of an
21 out. Like, a landscape is an out. It's a relationship between people and place and it's
22 an outcome through that process. So having mana whenua as part of the process of
23 working through how this activity is manifested in this context, like how the
24 implication for change is brought about, means that the acknowledgement of what
25 that wahi tipuna means in this context can be really addressed or deeply understood
26 and then worked through to manage the implications of what that means in this
27 context.

28 **Ms Sweetman:** Are tangata whenua currently addressed through the landscape ecological
29 rehabilitation plan?

30 **Mr Girvan:** There is reference gathered in that. But the main thing is a separate
31 condition suite that is about Tangata whenua engagement, and that refers to the suite
32 of landscape management plans, from what I understand. I can refer to those
33 conditions. So I can come back to that point. I understand there's conditions about
34 iwi or tangata whenua engagement. It's about – and it's part of the reporting of where
35 the management plans have got to. I think that's an appropriate kind of process to
36 understand what's being done through the landscape ecology rehabilitation
37 management plan and how that then works to address the significance of the cultural
38 values that occur.

39 **Mr Muir:** Is your responses to Ms Sweetman are in any way informed by one of the
40 more recent developments in this case, derived from Mr Spring's affidavit of

1 approximately two or three weeks ago identifying the creation if a fund capitalised
2 to the extent of up to \$50 million, with tangata whenua involvement in the
3 administration of that trust, and focused on the ongoing rehabilitative effects beyond
4 those captured by the bonds?

5 **Mr Girvan:** No, sir. I was referring – and I am aware of that, sir. Where I was speaking
6 was in terms of the iwi advisory group, which is conditions C23 to C27 within the
7 common suite of conditions.

8 **Ms Sweetman:** It would be useful, Mr Girvan, if you could review those conditions and
9 advise. I think we're going to be breaking shortly. Advise whether the conditions as
10 proposed reflect what you think should occur.

11 **Mr Muir:** Thank you. Did any of the panel have any further questions just directed
12 to Mr Girvan at the moment? [No] Did any of the panel have any questions that
13 they'd like to direct to any of the other experts in relation to this issue?

14 **Dr Ra:** Apologies. Could I seek the opportunity to respond to Mr Kensington's
15 question?

16 **Mr Muir:** Of course. I'm definitely going to come back to you. I want to round back
17 at the end, but I'm very happy that you do so now, Dr Ra.

18 **Dr Ra:** Thank you. Thank you, Mr Chairman. Thank you Rhys for your response,
19 and thank you Mr Kensington for the question. It is my position that management
20 conditions can help with many aspects regarding landscape outcomes, and this may
21 include rehabilitation and it may include aspects of detailed design. And mana
22 whenua would seek to be part of such aspects of the project if it were to progress.
23 However, the in-perpetuity effects of the destruction of the wahi tipuna and the ara
24 tawhito, from my perspective cannot be mitigated. They cannot be offset. And
25 management conditions cannot alleviate an in-perpetuity effect. We cannot build
26 back the ara tawhito and the land uses throughout the site where we sourced mahika
27 kai and the way that we traversed through these valleys to other significant cultural
28 landscapes. Any conditions would need to be discussed with mana whenua directly.
29 However, in-perpetuity effects cannot be addressed through conditions.

30 **Mr Muir:** Do any of the other experts wish to comment on that specific issue, the
31 rehabilitative conditions?

32 **Ms Steven:** I was going to ask for Dr Ra's view on that because I totally agree with Dr
33 Ra that in light of the information she has provided to us as experts, which we're
34 required to take on board and synthesise, it is my view that there is no way that
35 conditions can address that fundamental severing of the ara tawhito and the
36 relationship whenua and mana whenua. And I'm glad Dr Ra has provided me with
37 that understand, because that's what I felt within myself, and it's been confirmed.

38 The other aspect that I wanted to – back to Mr Girvan – is whether he considers –
39 and Dr Ra too can respond to this – the ara tawhito to me is significant at the whole

1 ONL scale because it is the place on the whole range where mana whenua crossed
2 and had relationship with. There is no other ara tawhito on this range. The other one
3 is through the Cromwell Gorge, and I'll defer to Dr Ra to confirm that. So to me, if
4 it's a significant adverse effect at central western scale, it's also a significant adverse
5 effect of the whole of the range scale, and Dr Ra has said that it's a very significant
6 adverse effect.

7 So, could I put it back firstly to Dr Ra to confirm the uniqueness of the ara tawhito
8 and then perhaps Mr Girvan can respond to that.

9 **Mr Muir:** You're happy to deal with it on that basis, Dr Ra?

10 **Dr Ra:** Yes. And look, in the reconvened JWS, point 109 of that document
11 outlines the scales of effects that have been discussed amongst the experts, from scale
12 A through D. And at each of these points I discuss mana whenua values briefly to
13 provide that reasoned explanation with regards to the effects ratings that I have
14 determined. Of significance and in relation to the question that has just been raised
15 now, it is actually scale B that provides – the interaction of scale A and scale B that
16 provides the most interest. As the ara tawhito crossed through this landscape, moving
17 from east to west, it crossed through the mountain range, that as we know, is the
18 outstanding natural landscape of the Dunstan Mountains, but it actually was a path
19 that connected our tipuna from the east coast to the inland central lakes district. And
20 significantly, to a number of locations that are mentioned under 109.b within the
21 Bendigo Tarras Basin, where there was a well-established keike or pa site, a fortified
22 pa site, that our tipuna were crossing through this landscape to access.

23 I make remarks that talk to the destruction within the central western Dunstan
24 Mountains landscape itself, where we really do see the physical effects. But as we
25 start to look at a pathway as a form of connection between significant other
26 landscapes, we start to see the perceptual and associative effects through the
27 severance that is caused. And that severance occurs once you move into the Bendigo
28 Tarras Basin and as you're starting to look at the Dunstan Mountains as a broader
29 landscape.

30 A limitation sometimes of thinking about such matters by professionals in this space
31 is that we are talking about a path or a pathway as is quintessentially known in a
32 western construct. However, our tipuna weren't sticking to one particular lane as
33 they moved through this landscape. They were traversing up and down the valleys.
34 They were accessing mahika kai sites. They were building temporary and permanent
35 keike or pa sites. And this ara tawhito is currently the demonstrated line, which
36 shows a central aspect of that broader connection to that landscape that we were
37 moving through.

38 So absolutely per the question, the effects are not just centralised within the central
39 western Dunstan Mountains. They further span out to scale B of the Bendigo Tarras
40 Basin and scale A of the outstanding natural landscape of the Dunstan Mountains.

1 **Mr Muir:** Mr Girvan, did you have any comment on that?

2 **Mr Girvan:** Yes, I do. In terms of the understanding ara tawhito, that was one of the
3 aspects that was informed through the cultural values assessment. So we were aware
4 – well, I was aware of that as part of the BML assessment initially. And it was an
5 understanding it's not just a pathway and not one location but like a place, shall we
6 say, that enables that connection to occur. It was a fundamental reason that the
7 closure includes consideration of that journey back within that context. It isn't just
8 path either, in terms of understanding what that means. Part of that closure picture
9 and what rehabilitation can be secured is acknowledging the modification which has
10 occurred in that landscape as well. And it is about a pathway through what is
11 recognised that [?] species as taramia. There are more but there's an understanding
12 that part of that journey was about the collecting of mahika kai, which is expressed
13 in the cultural values assessment.

14 So there is, beyond the physical dimension of where that path may be disrupted
15 physically by the mining activity, is acknowledgement of the particular context
16 within that mining activity which it occurs. And it has been a purposeful outcome of
17 the project to add the mining activity in response to those specific values, enabling
18 that connection to remain through Thomson's Saddle, and it remains as a four-wheel
19 drive access, which is to the north of the site through that mining activity, but
20 purposefully put back within the site and through where it's identified in the cultural
21 values as along Rise and Shine Creek through that closure. It was in response to
22 understanding that values with the information that we had at the time that that
23 outcome is brought about.

24 So again, I come back to that point around landscape is it's complex. It has many
25 layers that sit together. And seeking to align those te reo Māori and te reo pakeha
26 world views, it's engaged with that understanding and seeking to manage the
27 landscape outcomes in that context.

28 **Dr Ra:** Could I possibly seek a clarification from Mr Girvan?

29 **Mr Muir:** Yes, of course.

30 **Dr Ra:** Mr Girvan, you've stated that at the time of your original assessment prior
31 to the lodgement of the substantive application, that the only information that you
32 had available to you was the cultural values statement and the publicly noted work
33 on Ka Huru Manu, the Ngai Tahu Atlas. At that point you made the judgments which
34 are shown and remain shown on the outstanding natural landscape, scale A within
35 table 1. However, you have previously also noted that as further information became
36 available, include my own evidence, evidence of Mr Ellison, and the cultural impact
37 assessment contained within that, that you had reconsidered your judgments. As we
38 haven't seen your reasoned explanation around your synthesis, it is noted that your
39 effects ratings that were determined of the ONL prior to the substantive application
40 and post this additional information becoming available did not change. I'm keen to

1 understand if you can elaborate on why there were no changes in effects, if you've
2 had such substantial information come available to you, and that you've noted that
3 the effects are significant?

4 **Mr Girvan:** So in terms of the joint witness statement and the conferencing, so yes, I
5 accept I have had the value of what's been provided in terms of understanding the
6 cultural values. So that is acknowledged. In terms of where the BML assessment
7 landed, one of the aspects that – and this is a relational aspect of landscape that occurs
8 – and how these concepts of physical, associative, and perceptual come together in
9 place. Within that, I have refined the scale at which the landscape effects occur. I
10 acknowledge that at site scale, there are components of the mining activity which
11 have significant effects, and those, so, high effects, many of which through
12 rehabilitation reduce.

13 So that's clearly set out in the assessment, what those elements are and what level of
14 effect they have during the operation and at closure. What the BML assessment
15 didn't do was provide a synthesis at a more refined local scale. So this is the central
16 western area scale, which has been identified. Within that scale, one of the matters
17 that is acknowledged is the importance of the ara tawhito and the wahi tipuna to that
18 scale. And it is at that scale that I accept that there are high effects within the context
19 of the Dunstan Mountains ONL. In synthesising what the outcomes for the landscape
20 are in that context, I consider that the rehabilitation is meaningful for the removal of
21 the mining activity. I should say the cessation of the mining activity. So the
22 movement disruption and that occurs. I consider it does reduce the level of effect.
23 But there are enduring significant adverse effects recognised at that central western
24 ONL scale.

25 We appreciate the comment that there's a lack of – well, in the time we've had
26 available, in terms of being able to articulate what that is, but that is partly what's
27 driven that refinement of the extent of the clarification of where the effects occur in
28 that landscape.

29 **Dr Ra:** Sorry, Mr Girvan, my clarification mustn't have been clear. It was
30 regarding scale A of the ONLY, where your effects rating did not change between
31 pre-substantive lodgement and post-substantive, once you had extra cultural
32 information.

33 **Mr Girvan:** Yes. And that's where it comes back to what the synthesis of
34 understanding comes together to mean. So as still, as a landscape assessment, it has
35 understood and it doesn't diminish what that means from a Māori theoretical
36 perspective. It's understood where those physical, perceptual, and associative
37 dimensions come from. But putting together at that broader ONL scale, and there
38 are a range of values that need to be taken into account when assessing the effects of
39 landscape at scales. It includes acknowledging that there will be significant effects
40 on some values. But there are other values which that landscape holds that aren't as

1 significant – or aren't significant, aren't high. I still think it's a material effect of that
2 broader scale, but I've assessed it as a moderate level of effect. But that is
3 acknowledging and it doesn't diminish what the significance of the effect on wahi
4 tipuna is. But it acknowledges where that occurs in the context of that ONL.

5 **Mr Muir:** Ms Gilbert?

6 **Ms Gilbert:** Just very briefly. Like Ms Steven, I'm not surprised at all that Dr Ra has
7 serious concerns that the conditions can offer meaningful mitigation in this regard.
8 And I just have been listening to the exchange and I wondered if it's helpful to
9 express from a, if you like, te ao pakeha view on landscape assessment. I'm very
10 pleased Dr Ra has mentioned this, this, you know, sort of, what is it, lack of
11 transparency really between before the section 53 comments rating of adverse effects
12 on the ONL and its site scale, and then the post section 53 comments, which included
13 a lot more information. And I guess in my experience there'd normally be a bit of a
14 shifting of the dial, when you're talking about significant adverse effects in relation
15 to mana whenua, which we've all agreed.

16 **Mr Muir:** Would any other expert wish to make any comment in respect of that
17 issue?

18 **Mr Parker:** In my crass understanding of these matters, in the conferencing we tried to
19 find an analogy perhaps in the western world, and we were talking perhaps of
20 removing or destroying the Colosseum in Rome. And once you've done that, that
21 artifact is gone forever. And it's obviously a significant effect. If you were to rebuild
22 it, it would never replace what was lost. And I think that's the same with
23 rehabilitation in this case. However - - -

24 **Mr Muir:** It is slightly different, isn't it. Because construction of the Rise and Shine
25 pit is the actual course, and I understand from Dr Ra there was no one actual track,
26 but there is probably, by virtue of the topography, a relatively confined area within
27 which the wahi tipuna would have operated and it has lost. You establish new
28 walking access on higher or different ground, which would eventually take you up
29 and over Thomson's Gorge and Pass, but it will not be in that same area. So your
30 Colosseum can't be rebuilt in that sense.

31 **Mr Parker:** Exactly. I quite agree, and that's my point. I mean, you can rebuild the
32 Colosseum, you can revegetate the landscape, but it's never going to replace what's
33 been lost. So there's your significant effect. I guess, and that clearly, to continue
34 with that analogy, has effect on Rome as a whole. It has lost a significant thing. In
35 this case, the ONL has lost its significant wahi tipuna. However, I guess where I
36 have come down in considering the broader effects to that ONL, alongside Mr
37 Girvan, is that there are large areas of that ONL that I consider not affected. So if
38 we continue with this rather crass analogy, the Pantheon in Rome still exists when
39 you remove the Colosseum. So therefore that would come into your balancing and
40 synthesis of the effects on the wider ONL. And hence, I can say that the effects

1 would be more than minor. But I'm happy in considering that there are areas that just
2 aren't affected to consider the wider ONL at a moderate effect.

3 **Mr Muir:** Yes. Well, we'll probably come back to that issue, Mr Parker, in the
4 context of question number one.

5 [inaudible]

6 **Mr Muir:** A close-out comment from Mr Girvan?

7 **Mr Girvan:** I just wanted to speak a little bit more about the analogy too, in terms of
8 kind of understanding kind of what this means in this context. And in terms of the
9 destruction to the wahi tipuna, and that is something I accept from a mana whenua
10 perspective, so it's not something I rely on puke as evidence in that respect. My
11 comment would be that this landscape, it has elements of modification already
12 apparent within it. And from a landscape perspective, that is part of what I have also
13 considered. Yeah. And it comes to one of the matters that we will be talking about
14 in terms of the conservation covenant and what that means. But we're dealing with
15 a landscape which has had modification already occurring to it.

16 **Mr Muir:** To the extent, for example, the Thomson's Gorge Road was constructed,
17 no doubt right through the middle of the wahi.

18 **Mr Girvan:** Partly that, and beyond that too, some of the modification through pastoral
19 end use. And it is in terms of the connection and ability to access this place. So that's
20 part of the understanding that I've taken into that assessment. And it comes back to
21 then what can be done in that context to manage the implications of that change in
22 this context. So, recognising that we're dealing with a modified context, previous
23 activity that can be also addressed as part of what this application is seeking to do.
24 So I think that just I find that analogy being quite interesting, but we're not dealing
25 with an absolute locus, we're dealing with something which has an existing context
26 around it when we deal with what's being destroyed.

27 **Mr Muir:** Ms Steven, you looked like you wanted to say something a moment ago.
28 We don't want to close any contribution.

29 **Ms Steven:** Absolutely. Just very briefly, I always look forward to the new road being
30 an attempt, I guess, at reinstating access. Now, that new road is primary on an
31 exposed ridge line as opposed to in a valley. I mean, ara tawhito could choose to use
32 the Battery Hill Ridge, and it may have. Dr Ra might wish to comment on this. And
33 that ara tawhito was also associated with the ecology in the valleys as well, the
34 wetlands, the other species that were there. Now, I haven't been on that route but I
35 would hazard a guess – I've been up to the top of it. It's a pretty raw, exposed
36 landscape with much less, I would think, in the way of resources that iwi might wish
37 to access. So I'd be interested if Dr Ra would confirm my supposition that that route
38 in no way would make of the loss of the ara tawhito. And Mr Girvan was suggesting

1 that it was an attempt at reproducing it. There's a physical means of access, but in
2 terms of the actual meaning of an ara tawhito, if Dr Ra could further comment on it.

3 **Mr Muir:** Dr Ra, are you familiar with the proposed alternative route. Have you
4 walked it or driven over it?

5 **Dr Ra:** Thank you, Ms Stevens. Look, I do think we're straying possibly now into
6 areas where mana whenua hold that matauranga Māori and that I do not necessarily
7 wish to comment on. Except to state that, Ms Stevens, you are correct. We were
8 accessing many resources within this landscape. The landscape had a certain degree
9 of legibility that we knew over those 800 to 1,000 years how to navigate through.
10 And yes, Mr Girvan, as there were some minor changes in this landscape which
11 would have changed aspects of that legibility. The landscape as a whole remained
12 largely intact from a legibility and access perspective, as did a number of the mahika
13 kai sites and the routes that we would have travelled. But I defer to mana whenua,
14 and potentially further conversations if they so wish, to elaborate more the
15 mataurangi that they hold about the significance of this location.

16 **Mr Muir:** Thank you very much, Dr Ra. It is usual in this context, and indeed
17 supported by the provisions of the Act, that before one closes out any particular topic,
18 and I've got to, of course, go back to counsel to see whether there's any cross-
19 examination emerging out of this, but to conclude by inviting the applicant: is there
20 any other issue that has emerged out of this topic of conversation that you wish to
21 address us on?

22 **Mr Leckie:** No.

23 **Mr Muir:** Thank you very much. Now, I have reviewed most of the requests to
24 undertake cross-examination but not caught up with the very latest that came in this
25 morning, because I just got distracted by other issues after I arrived here. Are there
26 any counsel who wish to cross-examine on this topic? I didn't understand that there
27 were but - - -

28 **Ms Gepp:** Yes sir. It's under the broader heading of, I had identified it as Mr Girvan's
29 assessments of the management effects. So the way in which cultural effects are
30 incorporated or synthesised as a sub-issue within that topic that I would like to cross-
31 examine.

32 **Mr Muir:** Very good. Thank you very much indeed. Would counsel also, when they
33 are about to undertake their cross-examination, could they introduce themselves
34 please, for the purposes of the record, and to whom they are directing their cross-
35 examination. Thank you very much. Leave is granted accordingly, within the time
36 limits that we are operating.

37 **Ms Gepp:** It's a slightly awkward angle - - -

38 **Mr Muir:** By all means. Would you like to just - - -

39 **Ms Gepp:** Actually, that's alright.

1 **Mr Muir:** The tables are on wheels. Could we just push this table back a little further
2 to bring Mr Girvan into it. That's excellent. Does that make it any better for you?

3 **Ms Gepp:** Yes, thank you. And I think that still looks good on the screen, so
4 hopefully that's right for everybody. Alright. So Mr Girvan, I just wanted to - - -

5 **Mr Muir:** Yes. Could counsel introduce - - -

6 **Ms Gepp:** Oh, sorry. Yes. Sally Gepp for Sustainable Tarras, and I've got a couple
7 of questions for Mr Girvan. So the first question is about, Dr Ra put a proposition to
8 you, or asked you to comment on the way in which your assessment rating at the
9 ONL scale, scale A, had not changed between your original assessment and your
10 position now, having received the additional information from Dr Ra. And you said
11 that you've acknowledged significant effects on some values but other effects aren't
12 significant. And you said that you haven't diminished the mana whenua perspective
13 in the way that you've synthesised and landed on your rating. But given your rating
14 hasn't changed, doesn't that imply that you have diminished that perspective, because
15 you have allowed other aspects to more strongly influence where you landed than the
16 mana whenua cultural landscape impact?

17 **Mr Girvan:** I don't consider that it has. I - - -

18 **Mr Muir:** Could you get the microphone closer?

19 **Mr Girvan:** Yeah, I don't consider it has, I think. Where that has got to is
20 acknowledging the specific context through which those effects occur in this
21 landscape. And what hadn't been articulated within the BML assessment previously
22 was the relational aspect of where in the ONL these effects are material. And well,
23 I say material, more than – well, the significance of effect at that scale hadn't been
24 acknowledged, where there was no definition around the central western area which
25 the ara tewhito occurs within and the wahi tipuna would be destroyed. So it's through
26 recognising that there is part of that ONL that will incur significant effects. That's
27 where the refinements occurred through conferencing. There wasn't previously that
28 articulation within the BML assessment of where in the ONL those effects occur.

29 I've then gone to the broader ONL, which is having understood where those effects
30 occur and what that means. And that was articulated the BML assessment and the
31 reasons for those, the weighting or the finding at that scale. And it's through
32 understanding the articulation of the central western ONL scale and what it means
33 there that I feel the requirement has occurred. And it's acknowledged that there will
34 be some enduring significant adverse effects at that scale. Beyond that, there will be
35 material effects, but landscape's about putting all of those things together and, yeah,
36 I've reviewed where that's got to at that broader ONL scale and comfortable that that
37 has achieved that outcome.

38 **Ms Gepp:** So when you say it's about how it's all put together, we don't have any
39 transparency about how you have weighted each of those elements and how you have

1 put those things together, and why the significant adverse effects that you
2 acknowledge on cultural landscape values have not shifted the dial, do we?

3 **Mr Girvan:** We do have in the BML assessment the findings and reasons for how that
4 ONL has been assessed, for the effects on the ONL have been assessed as moderate.
5 And so that does explain the way that they've been synthesised together. The more
6 detailed findings in terms of what that means and where in the context of the ONL
7 are expressed in the joint witness statement.

8 **Ms Gepp:** Sorry, you've told what you've – you've told me where your explanation
9 is within the BML report, which is prior to receiving this additional information. But
10 where can I see how you have synthesised these different effects on different
11 landscape values, including the acknowledged significant adverse effects on cultural
12 values, once you received that information. Because I can't find anywhere in the
13 joint witness statement where you have done that analysis, or in any of the other
14 documents.

15 **Mr Girvan:** The analysis, in my view, has come down to clarifying the spatial extent
16 and location of where those significant effects occur. So there is a recognition of a
17 relational aspect of landscape which occurs in that part of the landscape, and that will
18 be affected. The joint witness statement clearly identifies the spatial extent of where
19 that significant effect will be. And through the conferencing, that's really how the
20 refinement's been clarified – which hadn't previously been done in the BML
21 assessment. So it does identify within that context of the ONL where the significant
22 effects inevitably will occur.

23 **Ms Gepp:** I understood Dr Ra to be saying that there is a significant adverse effect at
24 the ONL scale. So that's the part I'm asking you about, not about where within the
25 ONL the effects occur. But I'm asking where I can see how you have factored in the
26 uncontested evidence that there are significant adverse effects at the ONL scale?

27 **Mr Girvan:** And to that, I'd just go back to where the BML assessment had got to,
28 having understood that there's no clarification around the extent within the ONL that
29 those effects occur. So I have reviewed – we had as part of the joint witness
30 statement, reviewed back to what our findings were. I accept that that could be
31 expressed in – it could be a synthesis of what that means. I have reviewed what's set
32 out within the BML assessment and the rationale for why there's material effects at
33 that Dunstan ONL scale. And, yeah, I accept that the joint witness statement doesn't
34 provide the same level of synthesis which is set out in the BML assessment. But I
35 have reviewed what that means, and we can continue to hold that at the broader scale,
36 notwithstanding the significant effects at the finer scale, there will be moderate
37 effects.

38 **Ms Gepp:** Right. So we can't see anywhere what other things have been weighted
39 more positively in order to outweigh the significant adverse effects and therefore land
40 on the moderate effect?

1 **Mr Girvan:** Well, you can see that within the BML assessment.

2 **Ms Gepp:** Alright. See, we keep coming back to this prior assessment. Alright. So
3 my other question is just about the condition. You mentioned conditions regarding
4 engagement as being a method to mitigate significant effects on cultural landscape
5 values. Is that correct? Is that what you meant when you referred to the engagement
6 conditions?

7 **Mr Girvan:** No. When I referred to the engagement conditions, I was referring to how
8 can we seek to align these world views. And that's really about ongoing engagement.
9 So that was the importance of ensuring that the conditions enable that. I accepted
10 there's significant effects, and that's not for me to speak of, but I accept that the way
11 to review, or to manage that, is through ensuring that the conditions establish that
12 pathway of ongoing engagement, to address what can be addressed.

13 **Ms Gepp:** So, that sounds to me as though you are saying that the engagement is part
14 of addressing the significant adverse effect?

15 **Mr Girvan:** That would be part of, yes, the reason that there's – well, there's other
16 reasons, but that would be part of the reasons that there should be continued
17 engagement, yes.

18 **Ms Gepp:** So my question is just what weight the panel can put on that, when Dr Ra
19 is saying that these significant effects are not able to be mitigated. And - - -

20 **Mr Muir:** Dr Ra doesn't necessarily say that every single cultural effect cannot be
21 mitigated. The emphasis is, in this context, pointedly on the wahi tipuna, isn't it?

22 **Ms Gepp:** Yes, it is. So in the decision, the draft decision, by the panel on Trans-
23 Tasman resources, there was a proposal that there would be a conditions framework
24 that provided for post-consent engagement and that that would mitigate effects on
25 Māori customary fishing. And in that case the panel said, we can't place weight on
26 this because it's not something that mana whenua are seeing as something that would
27 be of value to them". So would you agree that that same concept would apply? That
28 if mana whenua don't see an engagement condition as being of value in mitigating a
29 landscape effect, then it's not something that the panel can put a lot of weight on.

30 **Mr Muir:** But again, is it quite that binary, Ms Gepp, in fairness to the witness.
31 Because were it as binary as you're suggesting, then Ka Runanga would want no
32 involvement whatsoever in the settling of conditions because the position would be
33 that none of these cultural effects could in any way be mitigated. I think Dr Ra is
34 very, and understandably so, if I might say, that these particular effects cannot be
35 mitigated, meaningfully mitigated. But a question posed on the basis that all of the
36 applicant's efforts to mitigate cultural effects are all irrelevant on account of Dr Ra's
37 evidence would not seem to me to accurately put Ka Runanga's position?

38 **Ms Gepp:** And I don't in any way want to put Ka Runanga's position, sir. So I was
39 simply trying to follow up on the question that Commissioner Sweetman asked,

1 which is, “your recommended conditions can start to address some of these things,
2 what would you see that looking like?” And the answer that was pointed to was the
3 engagement conditions. So I was trying to understand the way in which that
4 engagement condition could be relevant here. But I'm happy to leave it at that, sir.

5 **Ms Sweetman:** Can I just jump in with a question, Mr Girvan? You refer to the BML
6 assessment rather than your own assessment. Can you please explain the difference?

7 **Mr Girvan:** Exactly. Well, as an assessment, I'm one of the authors but it's a process
8 I worked with the team to prepare that. So I take ownership for it. But it was of
9 course a co-written assessment. And yeah, to clarify what I mean, it's been referred
10 to as the BML assessment in the questions from the panel so I've referred to it that
11 way, to be clear about words.

12 **Ms Sweetman:** Where our feed says it's your assessment?

13 **Mr Girvan:** It is my assessment. I own the assessment, yes. Apologies. I was using
14 the wording of the - - -

15 **Mr Enright:** Sorry, I just have a follow-on question for Mr Girvan.

16 **Mr Muir:** Yes, thank you, Mr Enright.

17 **Mr Enright:** Just for clarity, Mr Girvan, you agree don't you that there are significant
18 adverse effects on heritage, ecology, and cultural matters, at the site scale in central
19 western Dunstan scale, correct?

20 **Mr Girvan:** I don't – yes.

21 **Mr Enright:** But you've ultimately concluded that at the ONL scale, in overall terms,
22 the effects are moderate, correct?

23 **Mr Girvan:** Correct.

24 **Mr Enright:** And the basis on which you arrive at that conclusion must be because
25 you've placed the most weight on the question of visual effects as distinct from
26 cultural biodiversity and heritage, correct?

27 **Mr Girvan:** No. I could explain. And that's the reason that when this project was first
28 conceived, the first aspect that I was part of, I did, was to understand the values of
29 the Dunstan range, the Dunstan Mountains ONL. So if you look into the values of
30 the Dunstan Mountains ONL within the District Plan, it's a very concise statement
31 around the backdrop, the skyline, the retention of some of the important taws, which
32 are way-finding points, and there's a reference to Thomson's Gorge. It wasn't done
33 in accordance with Te Tangi a te Manu. So in terms of understanding the physical,
34 perceptual and associative dimensions which go into understanding landscape, that
35 was the first step, shall we say, in terms of understanding this landscape. When I've
36 looked at what this proposal means and through then subsequent to having done that
37 assessment, we had a proposal, a project to assess, and that's what my assessment,

1 the BML assessment, provided. And that's looking at those more comprehensive
2 understanding of what those values are.

3 It's then through conferencing that that sweep, or that set of values, was refined again,
4 the Dunstan Mountains ONL values. It's the effects on those values which I'm
5 considering what the effects on the Dunstan Mountains are. So, there's a range of
6 values, some of which are not impacted at all by the proposal, some of which are.
7 And it's that understanding of what that means in the context of the whole, what the
8 effects on that whole are.

9 **Mr Enright:** Yes. But the essential point here is that you've somehow averaged out
10 what are significant adverse effects by your own admission on three key grounds,
11 landscape values, again, cultural heritage, and ecology. And, again, when you've
12 widened out to the ONL area, you've landed on moderate. But again, that's because
13 I put to you that you put greater weight on visual dimension of landscape other than
14 the other aspects of landscape.

15 **Mr Girvan:** No. It comes back to the same question, looking at what that place, that
16 landscape, is, what it means, and how this proposal will affect the values of that place.
17 It's a synthesis, a combination, a combining of those values in that context at that
18 scale, which I've assessed. It's not just a visual effects assessment.

19 **Mr Enright:** Do you agree it's not appropriate though to average out. So, if there are
20 significant, for example, cultural effects at the scale central western Dunstan
21 Mountain, isn't it also correct that there would be significant adverse effects at the
22 ONL scale?

23 **Mr Girvan:** I don't think it's maths. I don't think it kind of works like that. I think it
24 works on coming back to what you're looking at when you're undertaking that
25 assessment. And you have to take into account the whole, what that Dunstan
26 Mountains means, and will it be determinatively diminished, I guess, is where I've
27 to with that in terms of understanding what the effects on that place are.

28 **Mr Enright:** So, determinatively diminished is not the threshold applied by the planning
29 framework is it, which is a maintain and protect approach. Do you accept that? For
30 the ONL.

31 **Mr Girvan:** I accept that and I accept that there are material effects at that broader scale.
32 What I have done is looked at what the values of that broader ONL, Dunstan
33 Mountains ONL, are and then assessed the effects on those values as a whole, and
34 land at there'll be moderate effects at that scale.

35 **Mr Muir:** [inaudible] Can I just check in please with Mr Holm on behalf of Ka
36 Runanga. Good morning to you. I haven't actually even formally acknowledged
37 you. My apologies for that. You indicated that it was unlikely that you would be
38 cross-examining on any topics. Is there any issue that you wish to explore in cross-
39 examination now?

1 **Ms Buxeda:** Morena, Mr Muir. Thank you very much for your question. From my
2 understanding, my colleague and I have no further cross-examination questions
3 arising out of this exchange.

4 **Mr Muir:** Thank you very much, Ms Buxeda. Is there any other counsel, apart from
5 Mr Leckie, that I have omitted, who wished to cross-examine? No. Mr Leckie?

6 **Mr Leckie:** Yes, thank you, sir. Just two short questions for Dr Ra, if I may.

7 **Mr Muir:** Yes, thank you.

8 **Mr Leckie:** Arising from this morning's exchange. Dr Ra, earlier in the exchange I
9 recorded, as I understand your position, that the effects on the ara tawhito and the
10 wahi tipuna were not mitigatable. Is that correct? Have I captured that correctly?

11 **Dr Ra:** Correct.

12 **Mr Leckie:** Just in relation to the ara tawhito in particular. There was an exchange
13 regarding the alternative Aotearoa Rise Road, being different to the current access
14 through the Rise and Shine Creek area. And I just refer to the mine closure plan that
15 following mining reinstates a connection through the valley floor. Acknowledging
16 your conclusions, would you agree that the reinstated route through the valley floor
17 is a mitigation action. Is it just not that you don't consider it goes far enough. Is that
18 a fair summary?

19 **Dr Ra:** No, I do not believe it is a fair summary. Yes, it reinstates a connection
20 through the valley floor, but that is not – I mean, it's a thing that's been quite clearly
21 articulated by myself and actually the other experts this morning, that that connection
22 is not the connection that was inherently there for the thousand years that we were
23 traversing this landscape. And the fundamental underpinning values, other than the
24 pathway itself, that existed that we were using to gather mahika kai materials and
25 actively participate in that landscape will not be reinstated through the connection on
26 the valley floor. And no, this is not a form of mitigation for the destruction of the ara
27 tawhito.

28 **Mr Leckie:** Thank you for that clarification.

29 **Mr Muir:** Back then to the panel. Are there any matters, and I'm obviously including
30 Mr MacGibbon here. Mr Barry. Mr Kensington, any matters emerging from the
31 cross-examination you wish to explore?

32 **Mr Kensington:** Not on this topic, no, thank you.

33 **Mr Muir:** Mr Barry? Mr MacGibbon?

34 **Mr MacGibbon:** Not from me, thank you.

35 **Mr Muir:** Thank you very much indeed. We'll close out that topic then and we'll
36 take a morning tea break. Just before I do so, could I just check in. We've explored
37 only one of six topics. Others will, I'm sure, be faster. This is a most important topic

1 and it's utterly appropriate that we should have spent an hour and a half or more on
2 it – or nearly two hours. But could I just check in now with counsel and with the
3 experts as to whether they consider that the process that we are adopting today could
4 be improved upon in any way. Or is it a useful process, and is it meeting your
5 expectations for a concurrent hearing. You can think about that if you like over a
6 cup of tea and come back to me. The panel is very undefensive about this. Any way
7 in which you think that we can improve the process, please let us know. Thank you.

8 **Hearing adjourned**

9 **Hearing resumed**

10 **Mr Muir:** Could I touch base first with counsel. Any suggestions for improvement
11 in the way in which we're approaching this concurrent hearing at this stage. Mr
12 Leckie?

13 **Mr Leckie:** From my perspective, sir, it's very useful. So, no changes from my end.

14 **Mr Muir:** And of course at any stage during the course of the process, if you think
15 that I have deviated too far off script, please check me and we will sort it. Ms Gepp?

16 **Ms Gepp:** Thank you, sir. No, it's very useful. I think it's a really good approach.
17 The only thing I would say is that when the topics were being identified, I did have
18 one topic that I think is not covered by those topics, so I seek to add that at some
19 point.

20 **Mr Muir:** That's fine. Would you like to develop that topic, would you like to
21 identify that topic now, Ms Gepp?

22 **Ms Gepp:** I can do.

23 **Mr Muir:** Or is it something you want to do by cross-examination or?

24 **Ms Gepp:** The topic was just consideration of alternatives which - - -

25 **Mr Muir:** Consideration of alternatives.

26 **Ms Gepp:** - - - was a question that was covered in one of the panel's questions and
27 discussed in joint witness statement one. JWS two.

28 **Mr Muir:** Fine. When we can get some moment we'll just add that on as number
29 seven and we'll come back to it at the end.

30 **Ms Gepp:** No, I think it's a very useful process.

31 **Mr Muir:** Thank you very much. And did any of the experts, either online or present
32 in person, did you have any comment on the way in which this process might be
33 improved from your perspective? No? Good. Okay. We're into topic number - - -

34 **Ms Buxeda:** Sorry, Mr Muir, Ms Buxeda online. Just in response to your question as
35 to whether the process is going well. From our perspective, particularly online, this
36 is going well. It's very clear. We're able to hear everybody, so in terms of the
37 functional aspects, that's much appreciated. And furthermore, we'd like to just record

1 appreciation of your indication that the most important topic is cultural matters was
2 heard first. Thank you very much.

3 **Mr Muir:** Thank you very much, Ms Buxeda. We do appreciate it. Thank you.

4 **Ms Sweetman:** Just one thing. A couple of people asked me in the break, are the expert
5 witnesses empanelled? No, they are not. So they can talk to each other and to counsel
6 and to anyone else they like.

7 **Mr Muir:** That reflects our wider licence under the Act. We are required to conduct
8 this, all our hearings, as informally as possible. We don't swear witnesses in, and we
9 consider that's appropriate. And thank you very much, Commissioner Sweetman, for
10 reminding me of that.

11 **NUMBER ONE – differences in the level of effect**

12 **Mr Muir:** Between the Dunstan Mountains ONL and the focus area, with a related
13 issue, whether the ONL can survive the project as currently framed.

14 So in this instance I'm going to start with you, Mr Girvan, and we'll do it basically
15 in reverse order. Mr Girvan?

16 **Mr Girvan:** Thank you, sir. There was a question raised by Ms Sweetman just before
17 I left about the management plan, the tangata whenua, so I can just respond to that
18 question first. So it is in the common set of conditions, condition 24, and it talks
19 about the functions of the iwi advisory group. And this was that point I made in
20 terms of how they engage with the management plan. So that condition requires
21 facilitate engagement and long term working relationships between the consent
22 holder and tangata whenua in respect of the BOGP and the management, mitigation,
23 offsetting, and compensation of environmental effects. So when I was referring to
24 what that management requirement was, that was where I was – what I was referring
25 to. I knew it was there somewhere but I wanted to refer to that condition explicitly.
26 So it was C24.

27 **Ms Sweetman:** Just a pre-warning. The planners will be getting questions about the
28 function, scope, and certainty, regarding that suite of conditions regarding the iwi
29 advisory group.

30 **Mr Muir:** Orders for are, particularly when it comes from Ms Sweetman.

31 **Mr Girvan:** Okay. So, and this question was one of the questions that was posed to the
32 group as item G in terms of the conferencing. So I had prepared just some brief
33 paragraphs to refute as part of that, if I can go to that. So my position remains that
34 the effects on that Dunstan Mountains as an ONL are moderate during operation and
35 reduce to low moderate at the ONL scale. So it's at that more local central western
36 focus here. I consider effects are high during operation and reduced exposure, but
37 knowing that there's some enduring high adverse effects at that scale.

1 On this basis I consider the central western area of the ONL would be unlikely to
2 qualify as an ONL during mining activity, if assessed in isolation as a discrete area
3 based assessment. So at that local scale, if you looked at it, I've acknowledged that
4 if you were doing an area based assessment, you would likely not include part of that
5 as part of the ONL.

6 Where I differ from some of the other experts is I do not consider these significant
7 adverse effects at minor scales are determinative of the overall effects of the values,
8 which is the coherence and integrity of that wider Dunstan Mountains as an ONL.
9 So that's where the key difference sort of sits.

10 I have provided a very, very brief synopsis of kind of where that difference in opinion
11 primarily lies. And I can go through that quickly now, acknowledging the time. But
12 the key values that I identify which remain determinative of effects at that broader
13 scale are that the proposal affects a discrete part of the ONL. It's not the defining
14 mountain sequence as a whole. Yeah. The Dunstan Mountains is specifically
15 recognised as in the statutory – in the CODC plan. There's the mountain range
16 between the [?] and the upper Clutha valleys. It's a memorable backdrop, extensive
17 summit plateau from Haite, which is leading rock northwards and distinctive skyline
18 towards. It's the wider scale attributes that remain highly legible and not physically
19 displaced by the project.

20 I also consider the broader skyline and backdrop values. And in terms of this project,
21 that's one of the key kind of dimensions that's worked through in this project. The
22 skyline and what it means is that backdrop values. It's identified as part of that
23 perceptual panorama of that broader mountain backdrop. And it's that unobstructed
24 skyline that contributes to those catchments which retains its value. So the mine
25 would affect parts of that backdrop but it doesn't remove the wider skyline sequence,
26 its overall mountain enclosure. And it underpins what's recognised as the ONL.

27 I've also looked at the geomorphic legibility. So as part of that initial assessment, we
28 looked at the values of – well, I looked at the values as part of the understanding what
29 the ONL values contained it. And you've got the peneplain to the south, which is
30 this broad legible peneplain with its flat top and the more distinctive angular kind of
31 northern mountain forms. There's this appreciation of the geomorphology which has
32 created this backdrop, and understanding what the project does to that. It affects
33 catchments at the transition between those two contexts. But that geomorphic
34 contrast remains entirely legible. So that's part of the value of the Dunstan Mountains
35 ONL.

36 In terms of its visibility, and that was one of the questions that was raised. I have
37 considered what the visibility is, and do consider it as it's largely contained to – it's
38 concentrated, shall we say. The effects of views are within the Shepherd's Creek and
39 Rise and Shine gullies primarily. So that's an intentional aspect of the project, to
40 keep them visually as far as enabled through the design articulation process. They

1 they're kind of hunkered down within those valleys, so they're not as broadly visible
2 as they might otherwise be. So I've considered the extent of visibility.

3 And the other point around that ONL is the values are distributed across – the key
4 values, shall we say, in terms of the summit plateau, the schist towards the
5 sillification. There's high altitude tussock, herb field, cushion field communities. A
6 large swathe of what was identified through conferencing. They're distributed across
7 a much wider landscape than just that central western area part. So you have to think
8 about what the extent of those values are and where they sit in their contribution to
9 the ONL.

10 So that's a very quick summary, but in terms of understanding where I've understood
11 the values of the effect on those values at that scale, they're primarily the reasons that
12 have landed, in terms of understanding what that means.

13 So beyond that, I accept at closure that the directly affected area would clearly remain
14 modified, and I accept there's some significant effects at that local scale, that central
15 western area scale. But having regard to what rehabilitation achieves and the removal
16 of those operational infrastructure elements, so the movement, the activity, I consider
17 that focus area, if you like, which with its modification could still read as part of that
18 broader landscape. And there's examples of that within other contexts, like where
19 mining has had impacts in a part of a landscape but seen as part of the broader whole.
20 When I say that, I think of St Bathans and Blue Lake in the CODC context as an
21 ONL. It's a modified mine but it's put back within the broader landscape.

22 So I guess, I consider that overall the scale of the project means that locally
23 significant effects are inevitable. So that's a given. I've accepted that there are
24 significant effects this project will have. But it's the consequence of the effects
25 allows the landscape, when assessed overall, to still be understood as part of the
26 Dunstan Mountains ONL, even if it's understood differently. So I don't consider that
27 the nature and scale of change overwhelms the values that make it outstanding when
28 considered as a whole.

29 **Mr Muir:** Thank you very much, Mr Girvan. Ms Steven, did you wish to address on
30 this issue?

31 **Ms Steven:** That's alright?

32 **Mr Muir:** Perfectly. It's even better.

33 **Ms Steven:** Very good. Yes, I would like to follow on from Mr Girvan's comments.
34 One of the fundamental differences in our opinions I think lies in the understanding
35 of how you determine the values of the ONL, the Dunstan Mountains as a whole.
36 We had identified a vast range of values in our first joint statement. Now, some of
37 those values are quite place specific. They only occur in certain parts of the range.
38 But all together, they all contribute to the overall outstanding natural value.

1 The first thing I would say is that in my assess - - the way I approached it was to
2 think about the range as one of the five ranges that make up Central Otago, which
3 are explained in the District Plan as being very important to the landscape of Central
4 Otago. Now, the Dunstan Range is the only range that doesn't have any of
5 development on it. The Peak Range obviously has the snow farm and the high
6 performance centre The other ranges have large reservoirs and dams on them. Which
7 admittedly look more natural than the snow farm perhaps, but they are still man made
8 features. Now, the Dunstan Range doesn't have anything like that. It does have
9 modifications but not of that scale.

10 **Mr Muir:** No water up there to put the dams in.

11 **Ms Steven:** It's a different topography that doesn't really have those ponding areas, if
12 you like. So that's the first point I would make. It's also one of the most visible
13 ranges, the most frequently observed ranges, because it's on that main road between
14 Canterbury, Queenstown and the West Coast. But when you look at the values, you
15 have to understand, in my view, that some of those values, first of all, some of them
16 are nationally significant or regionally significant. That's the ecological, the heritage
17 and mana whenua, for example. The recreational value of the Thomson Gorge Road
18 are regionally significant, according to the recreational technical report.

19 Now, those values are the values of the whole range, but they only occur in certain
20 places. Now, if you are compromising those values, or removing them entirely, then
21 you are affecting the value of the whole range, because you are removing a particular
22 value. You are impacting on it. That value doesn't necessarily exist anywhere else
23 within the whole range. So when there are significant adverse effects on those values,
24 in my view it's not just at the central western part, it's an effect on the value of the
25 range as a whole. It is no longer the same as it was before.

26 I think I'll leave that for now. I might cogitate on that further.

27 **Mr Muir:** Yes.

28 **Ms Steven:** Happy to take questions.

29 **Mr Muir:** Thank you.

30 **Ms Gilbert:** I would support and agree with the comments that Ms Steven has made to
31 you. The other thing that I'd also add, that is possibly putting the same things Ms
32 Steven has said in a slightly different way, is that in this part of the Dunstan
33 Mountains there's a concentration of these values. And - - -

34 **Mr Muir:** When you say "this part", we're talking about the part that will be - - the
35 direct footprint part?

36 **Ms Gilbert:** The, the site, yes. And its margins. So what we've mapped is the central
37 western. Okay. So you've got this concentration of values, the ecological values,
38 mana whenua values, heritage values, recreational values. And so when you go back
39 to look at the overall effects of the development on the ONL overall, and you step

1 through the various values that we've agreed in the first JWS, which is about seven
2 pages worth of material – which is what is required as a landscape assessment of an
3 ONL – it's actually several, numerous, values that are because of the location of the
4 development area and its margins in that focal point. So while part and parcel of that
5 is also that it's the central part of the ONL. If you're, say, on the edge of an ONL, at
6 the northern end or the southern end, it can be a slightly different outcome because
7 you're not interfering with a coherent landscape sequence, land form sequence.
8 Which, in this situation, we've got this sort of bite of industrial development into the
9 middle of the ONL.

10 So going back to the question, does that address the question or would you like me
11 to talk about what remains, or the difference of opinion I suppose?

12 **Mr Muir:** Well, just going back to question one. Is there anything else relevant to
13 that question?

14 **Ms Gilbert:** A difficulty that I've had – and I'll use the same terminology that's been
15 used to date – is the BML assessment had a very brief listing of landscape values that
16 underpinned the, if you like, outstandingness of the ONL. Considerable evidence
17 was provided in the section 53 comments about what the full list of values that
18 contributed to the outstandingness of the ONL was provided by other parties. That's
19 now been accepted by Mr Girvan. There's been additions made in response to Dr
20 Ra's input, which has been very helpful. But until just now, I haven't actually seen
21 a structured and coherent stepping through of the effects of the development on those
22 various values in the material. And I think that's a really important methodological
23 and evidential gap.

24 **Mr Muir:** Can I just ask a question of you. In elevating this central part of the ONL
25 almost to being the most important part of the ONL, is it in any way relevant that this
26 part of the ONL is subject to conservation covenant but other parts of the ONL are
27 actually in the public domain?

28 **Ms Gilbert:** I think I follow the question and I think what you're saying supports the
29 analysis that I'm making, which my understanding is under the tenure review process,
30 that when the land was freeholded some parts of the land were considered to be more
31 valuable than others. And this area is one of those locations.

32 **Mr Muir:** Yes. But unlike some other parts of the ONL, it is not – it is subject to
33 covenant only and has not been brought into public ownership. That was the other
34 side of the question. So is there, in now elevating this central part – and I mean this,
35 Dr Ra, please don't misunderstand it – can I just park the cultural issues which apply
36 very particularly to the wahi tipuna. Can I just put those just in one side, not in any
37 way diminishing them. But those are not reflected in other parts of the ONL as
38 especially, because this was other parts of the ONL were not methods of conveyance
39 from east to west in the same way.

40 **Ms Gilbert:** Yes.

1 **Mr Muir:** So just popping that issue to one side. Then looking at other parts, apart
2 from the central section of the ONL, we see, for example, where the almost celebrated
3 Kanuka Loop is to the south, southeast, of the location and that falls within the public
4 domain now.

5 **Ms Gilbert:** Yes.

6 **Mr Muir:** And we see some of the heritage sites, of course, what one would call
7 perhaps some of the more obvious heritage sites. Apart from the cognoscenti, who
8 know where to go to look for the more, the smaller details of heritage, they have been
9 brought into the public domain. So I just then come back to the question, when
10 experts elevate the central portion to the status that they now do, does that need to be
11 perhaps considered in the context of what has occurred earlier in the demarcation
12 between conservation covenant and public ownership?

13 **Ms Gilbert:** Yes, I'll try to respond to that, sir. From a landscape perspective, land
14 ownership is not a determinative factor in terms of landscape values. Those values
15 exist regardless of who owns the land. And I guess my sort of take on things is that
16 the features and elements that you talked about in the public domain are connected,
17 are part of a broader network that includes features and elements on private land,
18 covenanted land. I also think another way, and I've sort of tried to do this in my
19 comments, in thinking about effects of developments like this on an ONL, is to turn
20 it on its head and ask yourself, would it remain an ONL.

21 So my evidence is, I think, pretty clear that I don't think the central western mountains
22 would remain an ONL. And I guess in my experience of identifying and evaluating
23 ONLs around the country, when you're carving out an area of this scale out of an
24 ONL, I don't see how you couldn't regard that as a high adverse effect on the ONL.

25 **Mr Muir:** Is that comment made on the basis of in-perpetuity or during the – for the
26 course of the mine's operation?

27 **Ms Gilbert:** No. It's my evidence – I'll just check. Yes, it's definitely my evidence
28 that it's at closure, upon closing, that you would have high adverse effects on the
29 ONL, within that central western mountains portion. Sorry - - -

30 **Mr Muir:** But not going so far as to suggest that the, going to the sub-question here,
31 whether the ONL can survive, not to the extent of suggesting that the ONL in other
32 parts of the Dunstan Range wouldn't be equally applicable. It's not – this effect is
33 not so overwhelming as to completely undermine the entire ONL?

34 **Ms Gilbert:** I think that's fair, sir. I think you might end up, if you were coming back,
35 thinking about quite a different approach to the mapping of the ONL. Would you
36 end up with two ONLs. I don't know. Whether this is such a severance. I accept
37 though on the southern, south eastern side, that the development doesn't have the
38 same impact. So you'd have to look at things again.

1 **Mr Muir:** There'd still be coherence between those two sections across the ridgeline
2 of course?

3 **Ms Gilbert:** Well, I'm not quite so certain about that, sir. When I've looked carefully
4 at the visual simulations, and also thinking about the communications mast on
5 Battery Hill, which I understand is not part of the application but is likely to be part
6 of the development, my impression is there will be structures visible on the ridgeline
7 and enduring and form change visible.

8 **Mr Muir:** I've probably derailed the process by asking all those questions now, but
9 we'll try and get it back on track. I'm sorry. Dr Ra, would you like to contribute to
10 this?

11 **Dr Ra:** Thank you, Mr Chairman. I actually defer to the conversations that have
12 been had by Ms Steven and Ms Gilbert, which cover a number of these topics,
13 alongside the cultural factors that we discussed this morning. And I also respect that
14 to somewhat isolate the two topics does make sense. So I appreciate you being clear
15 about that, Mr Chairman. In saying that, I would also like to elaborate that whilst
16 this morning's conversation did focus specifically on the ara tawhito that ran east-
17 west. It is further recognised throughout the evidence of myself and Mr Ellison and
18 the cultural impact assessment, that there is a broader cultural connection and values
19 tied to the Dunstan Mounts ONL as a whole, and that these are contributing factors
20 which have sought – contributed to the determination of this being an outstanding
21 natural landscape.

22 **Mr Muir:** Thank you. Mr Brown?

23 **Mr Brown:** Sir, I've listened to this morning's discussion with interest and I just want
24 to make the point that, first of all, I agree with the values that have been identified in
25 relation to the Dunstan Mountains ONL. Having said that, I don't really attach a great
26 deal of primacy to just the area around the mine site. I think it's an integral part of
27 the mountain chain and sequence but I don't isolate it as having particular importance
28 except in one – or two regards. The first is cultural, which Dr Ra has explained
29 already, and the second is in relation to its heritage significance and the adjacency to
30 the DOC heritage reserve. And of course, Thomson Track Road itself.

31 But the point I wish to make is that the ONL cannot be viewed in isolation. The ONL
32 has very important connections and associations with an extensive area of the Mata-
33 au Clutha River corridor and with parts of the Pisa Range, and with areas around it.
34 And I've identified some of the areas that I feel would be affected in that regard, and
35 they range from the area of Bendigo itself to Māori Point and Tarras. They also
36 include the Queensberry and Lockburn areas across the other side of the Mata-au
37 Clutha River. And they include parts of the Pisa lifestyle area, which has been
38 developed over the last 10 or so years. Which looks back directly towards the
39 Dunstan Mountains and the subject area. And of course you just have to look at the
40 Mata-au Clutha Valley system as a whole. And there's quite an extensive catchment

1 within that area that all relates to the Dunstan Mountains – and the mountains have
2 meaning in relation to that interaction.

3 Now, being somewhat of a reductionist, I've also looked at this in terms of, well,
4 what are some of the indicators of this interaction. And the clearest that I can think
5 of is simply the roads that we travel down when moving through the area. And if
6 you look at those roads, you discover that State Highway 8, State Highway 8A, Bells
7 Road, State Highway 6, Māori Point Road, parts of Argour Road, and across the
8 Mata-au Clutha Road, locations like Pukekowhai Road, Waylana Heights, and so on,
9 all have a degree of engagement with the mine site. In fact, I can't think of many
10 roads within this broad area that don't have a degree of engagement with the mine
11 site. Now, that's not to say the effects on those will always be high, because clearly
12 that's not the case. And that in fact reflects the difficulty of trying to determine just
13 how significant the effects of the proposal will be. Not just on roads and the people
14 travelling down them who might glimpse a mine or glimpse anything else, but also
15 the people who live around those roads, who occupy them and work near them.

16 So there is a much stronger sense of engagement with the mine site and its setting
17 than – it's not just a body of a mountain or part of a mountain chain in isolation. It's
18 very much linked to the landscape around it. Now, most of that landscape is highly
19 modified and you don't have to go very far from the site to see that. You see cherry
20 orchards, you see vineyards, you see lifestyle development. You see workers'
21 residences, farmhouses, and so on. You even see pivot irrigation. And so that creates
22 a tension, to a certain degree, between parts of the old river terraces, the old alluvial
23 terraces, and the main body of Mata-au Clutha River system, which to a significant
24 degree are all modified with the Dunstan Mountains, which are not, certainly not to
25 the same extent.

26 And so I think that part of the importance of the Dunstan Mountains is derived both
27 from this sort of spider web of connections that I've just described, but also the
28 contrast between the much more developed landscapes that sit around and below the
29 mountains and the much less developed, for the most part, mostly natural sequence
30 of the mountains themselves.

31 So from my point of view, some of the important effects that arose relate to that
32 sequence. And the point has been made already that while removing part of the ONL
33 doesn't necessarily mean removing all of the ONL. And I can agree with that. But I
34 think the point that's missed there is that if you sever part of the mountain chain right
35 at its centre, at a point where it's also visually linked to the likes of Battery Hill and
36 to the Welshtown and other heritage sites nearby, then you do so in a way that
37 challenges the integrity of the whole mountain range. Not only that, it would be
38 occurring at quite a strategic location between the northern and southern halves of
39 the range, which are in effect linked at this junction between, as Mr Girvan refers to
40 it, the peneplain landscape to the south and the more jumbled, seemingly more
41 sedimentary, though in fact it's still schist, mountain profiles to the north.

1 **Mr Muir:** I'm just a little conscious, Mr Brown, of our time. Could I ask you to wrap
2 up within a minute or so?

3 **Mr Brown:** Well, in fact I think I have wrapped up.

4 **Mr Muir:** Yes. Okay. Excellent. Thank you very much indeed, Mr Brown. Mr
5 Parker?

6 **Mr Parker:** Thank you. I'd probably add, noting that most of my points have already
7 been covered by the various other expert panelists, that to experience the site along
8 the Clutha Valley, you wouldn't necessarily appreciate that the site is at the centre of
9 the mountain range. If you were, for example, just driving around the south or just
10 driving around the north, it is that part of the mountain range which most occupies
11 your attention. And from an experiential point of view, that is the most important
12 part of the mountain. It's only – it's only when you look at the map that you realise,
13 in the aerial, that the location is the central location.

14 In finding that the effects on the whole ONL are moderate, as I have done, and as I
15 agree with Mr Girvan, I have considered the facts that large tracts of land to the south,
16 the north, and the east are effectively unaffected. And I am weighing that up against
17 what I consider to be significant adverse effects in what we're referring to as the
18 central western area. And I consider those central, those effects are significant
19 because of the effects to the cultural landscape and to the heritage landscape. And in
20 that, I'm in agreement with most of the other experts. I guess those – and to
21 paraphrase what the experts who feel that the effects to the whole ONL are
22 significant, I would say that they consider that the site is the heart of the entire range
23 and therefore if you take out the heart, the patient dies. I guess if I was to use an
24 analogy, I'd probably call the site more like a kidney, so the patient has a chance to
25 live on. I'll bring the Colosseum back at some stage.

26 So I think in weighing things up, you have to consider that if you're experiencing the
27 north, the south, or the east, you're looking at effectively the same ONL that you
28 would always have been looking at. And to go to Mr Brown's point about those
29 interconnections of the relationship of the ONL to the wider valley, as you drive
30 along many of those roads, the ONL is still achieving, or giving you, the same
31 experience as it would've prior to the site being started, if it's to get consent.

32 With the whole thing being ONL, I think you would still grant ONL status to the
33 range as a whole. Would you grant ONL status to the site? I would suggest probably
34 not. I think there would be sufficient modification to that site. I mean there's a 65
35 hectare hole that's going to be created and you would probably find that the site would
36 not be granted ONL status. Possibly if the revegetation was completely successful
37 in consideration of its relationship to everything else, you might give it ONL status.
38 But I think on balance, the site would no longer receive ONL status. Thank you.

39 **Mr Muir:** Thank you very much. I'm going to obviously come back to Mr Girvan.
40 But before I do so, among the other five experts, is there any comment that anyone

1 wished to make on anything other than what Mr Girvan has said? No? Yes, Ms
2 Steven.

3 **Ms Steven:** Going back to the question Bridget asked a while ago about the
4 concentration of values and whether that was reflected in the fact that it was a
5 covenant rather than a conservation. Is that what I take your question to be?

6 **Mr Muir:** Yes.

7 **Ms Steven:** I have some experience with the tenure review process. I was involved
8 with it for about 10 years. And that's what this is an outcome of. This was a very
9 old tenure review. It was done pretty quickly. In my experience, a lot of the surveys
10 have been quick. And in those days the understanding of the values of dry lands
11 wasn't so well understood. Now, the spring annuals and dry lands aren't even
12 mentioned in the covenant values, so they obviously weren't aware of them. There
13 probably wasn't a spring annual survey so they wouldn't have known. Those values
14 obviously are known to exist now and they are of considerable importance. Had
15 those values been known then, the outcome might have been quite different.

16 The other point that I'd make is that a number of those stations along that range have
17 never been through tenure review. So that's why there aren't conservation areas
18 where you might think there should be.

19 The third point I made is that it always a negotiated outcome. It didn't necessarily
20 reflect where the values actually lay.

21 So bearing all that in mind, you have to look at it with some circumspection of where
22 the conservation areas lie and what that might mean in terms of where the values are.
23 That's what I was meaning. Take it with a grain of salt. Much of the range has not
24 had the benefit of such intense survey that has gone with this project. If it were, we
25 might find there are some very important values elsewhere, which wouldn't be
26 reflected by the disposition of this.

27 **Mr Muir:** Thank you very much, Ms Steven. Coming back to Mr Girvan. Having
28 heard from the other experts, is there anything that you wish to add before I hand it
29 over to the panel for questions?

30 **Mr Girvan:** I don't.

31 **Mr Muir:** You're happy that the evidence sits as it does at the moment. Right. Very
32 good. Now, to panel questions. Mr Kensington?

33 **Mr Kensington:** Thank you, sir. I only have one question and that is I think you're very
34 clear on your respective assessment findings.

35 **Mr Muir:** Is the question directed to Mr Girvan?

36 **Mr Kensington:** I think to all. But effectively, is this proposal, from what I hear from
37 you as experts, similar to the application to revoke the conservation covenant where

1 it's going to be revoking part of the ONL, as an ONL status. Is that what you're all
2 saying?

3 **Mr Girvan:** I'll answer that. We looked at the central western focus area. I accept that
4 there would be – if you were looking at that with an area-based landscape effects –
5 sorry, area-based trying to map the ONL extent, I accept that you would map it
6 differently than you would now. So yeah, I accept that.

7 **Mr Kensington:** Okay. Everyone's agreeing? Okay. That's all I had.

8 **Ms Gilbert:** I guess there's one qualification is that Mr Girvan and I think all of the
9 other experts have a difference of opinion as to the extent of the central western
10 mountains scale, which is I think what we're talking about.

11 **Mr Kensington:** And that's shown on the map. Map 1 on the joint witness statement
12 number two?

13 **Ms Gilbert:** Yeah, the most recent joint witness statement. And so the - - -

14 **Mr Kensington:** It's the red line and then the dashed line, is it?

15 **Ms Gilbert:** The dashed blue line, or purple line actually, is Mr Girvan.
16 [inaudible]

17 **Ms Gilbert:** Yes. And then the rest of us have gone with the solid red line.

18 **Mr Muir:** So this is the Mt Moka as opposed to Mt Nihiti?

19 **Ms Gilbert:** That's correct, sir, yes. So the reason I raise that is of course it's got a
20 bearing on the extent of the mountains that get carved out of the ONL.

21 **Mr Muir:** How do we meaningful interrogate that issue further, to the extent that it's
22 necessary?

23 **Ms Gilbert:** As long as I don't have to answer first. Perhaps a good way of doing that
24 would be to ask us how we've come about the delineation of the boundaries to that
25 area that we have.

26 **Mr Muir:** It is raised as an issue where there was a difference, as recorded in the first
27 JWS, and I think that we probably could explore it. Mr Girvan?

28 **Mr Girvan:** Yes. So where I've drawn that line from Mt Moka is the northern extent
29 of the peneplain. And from Mt Moka, if you travel – I would have that map up
30 actually, if that's possible. That's it. I know that we had a series of maps that we
31 prepared. A map 1 of that. It was the Boffa Miskell landscape, Boffa Miskell map
32 set. I think it was map 1. It is in the JWS as well, so it's the same map. Yeah,
33 apologies. So Mt Moka, it's the northern extent of that peneplain. So in landform
34 terms, it's where the flat kind of mountain ridge top then folds into the Rise and Shine
35 Creek. So there's a clear distinction between the landscape types there, where that's
36 where we've drawn the boundary between the central western part and where that
37 peneplain remains legible further to the south. But yep.

1 And just moving north, we went in the joint witness statement, we noted Cloudy Peak
2 as the northern extent of that central western area. To be fair, that was a very rough
3 line that we drew during that conferencing. I've traced the vicinity of that line along
4 the catchment of Dry Creek, so that's my northern boundary. I've been more refined,
5 shall we say, in defining that northern extent of the central western area.

6 I concur with the ridgeline to the east, which is the ridgeline, so that's a definable
7 boundary. And I've refined the line to respond to that. The western boundary is the
8 extent of the ONL. So that's how that line's been defined.

9 **Mr Muir:** Thank you, Mr Girvan. Ms Gilbert?

10 **Ms Gilbert:** So I support the larger mapping, which takes in what I consider to be a
11 more appropriate landscape-based approach to the mapping. We're often looking for
12 dominant ridgelines and catchments to delineate landscape boundaries. Which takes
13 me to Mt [?] and to the Cloudy Peak ridgeline systems. And where I differ with Mr
14 Girvan about the Mt Moka and peneplain exclusion that Mr Girvan's applying is that
15 you will have heard from answers earlier on the ONL issue more generally, that this
16 is the junction between peneplain and more angular schist-derived mountain system
17 to the north. And to make sense of that in a landscape perspective, you need to
18 capture a bit of both, basically. If you just draw the line at the edge of the peneplain,
19 you're really not giving context to that junction component of the landscape we're
20 considering. Thank you.

21 **Mr Parker:** If I may add, I agreed with Bridget and all other experts, excepting Mr
22 Girvan on the boundary of the central western area from an ease of discussing the
23 landscape effects to that central western Dunstan Mountain area. However, I think
24 if you were assessing where an ONL would go to or the extent of the carve out of the
25 ONL, that area might change. In fact, I think you would probably take the ONL up
26 to where Mr Girvan is stating because there's no physical landscape effect tot that
27 area, so you would probably maximise the extent of the ONL when assessing and
28 keeping it. So I don't necessarily see that division of where we've - - -

29 **Mr Muir:** In lay terms, the margins of the directly impacted area would not be so
30 overwhelmed by the impacted areas to lose their ONL status you mean?

31 **Mr Parker:** Yes, yes. And I guess in the JWS, we were defining that area so we could
32 talk about a common area, not so that we could define the amount of ONL that was
33 carved out.

34 **Mr Muir:** Right. Thank you. Dr Ra or Mr Brown on this subject of the delineation?

35 **Mr Brown:** Yes, I'm happy to talk briefly about that. Purely from a physical catchment
36 perspective, Mr Girvan's delineation makes sense. The difficulty is that if you are
37 looking towards the Dunstan Mountains from the Mata-au Clutha Valley or parts
38 nearby, your views capture more than just that catchment. So in a sense, it's looking
39 at the area that would be heavily influenced or affected by the mine. That would

1 have to be taken into account in any realignment of the ONL boundary. And I'm not
2 exactly certain where that boundary would lie. It would need some careful
3 assessment on the ground. But it could well be between the two lines that people
4 have just been talking about. It's just that it's difficult to ascertain without
5 undertaking further work on the ground.

6 **Mr Muir:** Thank you, Mr Brown. Dr Ra?

7 **Dr Ra:** Thank you. I'd just like to support a number of the statements that were
8 made by the other experts. Particularly that I believe that the larger scale boundaries
9 are the more appropriate scale to start this conversation. But as per Mr Brown's
10 closing remark a moment ago, that this requires a level of interrogation that needs to
11 be undertaken on site to achieve a thoroughness of understanding where those
12 boundaries would or not lie.

13 I would like to make one further point. That all experts agreed, as you will have
14 noted in the JWS, that the nested scale in this multi-scale approach is required to be
15 able to assess this landscape and the ONL effectively. And that omission is critical.
16 Once that scale C was assessed through the conferencing process, per Table 1, the
17 effects were documented as being very high to high, including at closure. In my
18 opinion, this confirms that the original assessment understated the effects by omitting
19 the scale at which some of the most significant effects occur. And I think that's a
20 critical factor to consider when our understanding how we would define what does
21 or does not sit within an ONL, when the broader comprehension of what is an
22 appropriate scale to understand this landscape had was not clearly outlined in the
23 original assessment.

24 **Mr Muir:** Thank you. I'm just going to double back to Mr Girvan before we just
25 move off this topic, if there's anything that he wanted to respond to?

26 **Mr Girvan:** Yes, three brief things. And the first is just in terms of the – why we
27 delineated the central western area. In my opinion, that was to determine where the
28 effects were. It wasn't to determine which part would be removed from the ONL.
29 So, that's the first point. The second point is, and I agree with the other experts when
30 it comes to this, if we were looking at which part of that central western area may be
31 removed during the operation, I don't think it's the entire central western area that
32 would be removed. I think that would require more careful scrutiny. And yeah, like
33 I said, that's an area-based assessment which we haven't undertaken. But in my
34 opinion, it would be only part of the central western are ONL that would be omitted
35 during the operation.

36 And the third point – and I accept that there has been refinement through the
37 conferencing to where the level of effects have occurred. In the assessment, I had
38 looked at the components of mining activity and what their level of effect were. And
39 it's through that assessment that I then made an overall judgment to what the effects
40 on the ONL, the Dunstan Mountains ONL as a whole, were. It's through

1 conferencing that we've refined the scales within which those assessments have been
2 undertaken.

3 So I accept that there has been refinement in terms of what the scales are and where
4 the significant effects occur. And that's now clarified through the conferencing
5 statement. I considered there were significant effects. That's always been the case
6 within the assessment. I then assessed what that meant in the scale of the ONL. I've
7 looked at what that means now in the context of the Dunstan Mountains ONL, and I
8 accept it and I consider that that's a high effect at that more refined scale.

9 **Mr Muir:** Thank you, Mr Girvan. Ms Sweetman, did you have any questions of the
10 experts?

11 **Ms Sweetman:** No, nothing from me.

12 **Mr Muir:** Mr Barry?

13 **Mr Barry:** No, thank you.

14 **Mr Muir:** Roger, did you have any?

15 **Mr MacGibbon:** No, I don't, thank you.

16 **Mr Muir:** Right. Thank you so much. Very good. Cross-examination. Is this a topic
17 that is inviting cross-examination?

18 **Mr Enright:** Yes, sir. Not many questions. Just a few. So Mr Girvan. Just reflecting
19 on the planning framework and the way in which it approaches outstanding natural
20 landscapes, and I can take you to the words used if need, but in both the proposed
21 Otago Regional Policy Statement and Central Otago District Plan, both refer to
22 protecting ONLs from adverse effects of inappropriate development essentially. I
23 just want you – bearing that in mind and really regardless of where you draw the lines
24 on the plan in terms of the area that will be affected to a significant degree. In terms
25 of the area, that will not protect or maintain those ONL values within that particular
26 area.

27 **Mr Girvan:** Through conferencing, I think that the refinement of scales or for the
28 nested scales, that's the best way to phrase that, helps understand where those parts
29 of the ONL aren't protected.

30 **Mr Enright:** So put another way, probably in some ways it doesn't matter whether one
31 draws the line at Mt [?] or Mt Apiti, but within the area that you've identified as the
32 central west Dunstan Mountains, the proposal will not protect the ONL values and
33 will not maintain those. You accept that, don't you?

34 **Mr Girvan:** I accept there'll be significant effects in that part of the ONL. Beyond that,
35 just in terms of the maintain question, I have assessed the implication of that closure
36 and it is through that that I consider that the high effects which occur in that central
37 west area would reduce to moderate high, notwithstanding some high effects which
38 remain.

1 **Mr Enright:** That answer though is predicated on success of proposed rehabilitation,
2 correct?

3 **Mr Girvan:** It certainly is. And naturally, that's not a topic but that is an important
4 qualifier to your answer. Yes, I do consider there's benefits that occur through that
5 and that is one of the qualifiers that it relies, on yes.

6 **Mr Enright:** Subject to achievability?

7 **Mr Girvan:** Well, the requirements to undertake rehabilitation is part of the mining
8 activity. I will qualify that too, as there are aspects of rehabilitation which occur
9 separate to the direct disturbance footprint. So that is what I've also taken into
10 account. There is parts of that central western Dunstan Mountains ONL which are
11 retired, retired from pastoral grazing as the mining activity occurs. And that isn't
12 reliant on the rehabilitation of the direct disturbance footprint but it is improving what
13 the condition of that part of the Dunstan Mountains ONL provides.

14 **Mr Enright:** Yes. Again, I won't stray into the next topic too much but just closing this
15 point off. In your answer on rehabilitation, it's very much contingent on the
16 outcomes of the ecological rehabilitation, where you are relying on the expertise of
17 the ecologists, correct?

18 **Mr Girvan:** Yes, I have worked collaboratively with the restoration ecologists to
19 understand what's feasible and how we manage that ongoing in this context.

20 **Mr Enright:** Thank you, sir.

21 **Ms Gepp:** Mr Girvan, and I'm probably just pre-empting a future topic, so I'm just
22 going to ask you to confirm a connection between these topics. So in terms of
23 lighting effects and effects on the dark sky, those are matters that are relevant to
24 assessing the level of effect on the ONL, aren't they?

25 **Mr Girvan:** They are relevant matters to assessing landscape effects and their full
26 effects.

27 **Ms Gepp:** Effects on the ONL?

28 **Mr Girvan:** Yes, I'd accept that.

29 **Ms Gepp:** And so the outcomes of the lighting assessment, some of which is still
30 being worked on, that would influence your assessment of effects?

31 **Mr Girvan:** Yes. I considered that the management of lighting effects is part of the
32 management of landscape effects. Yes. That has been worked through with the
33 lighting experts I understand.

34 **Ms Gepp:** And then a similar question in relation to the heritage values. Where the
35 heritage experts have identified that there are additional features that haven't been
36 described in the heritage assessment, or features affected, such as by the willow
37 removal, or potentially affected by the willow removal covenant that haven't yet been

1 described but may be affected. Did that also feed into your assessment, or did that
2 need to feed into your assessment of landscape effects?

3 **Mr Girvan:** Insofar as those areas form part of the ONL, yes, it could be an effect on
4 the ONL. I accept that.

5 **Ms Gepp:** Thank you. Those are my questions.

6 **Mr Muir:** Thank you, Ms Gepp. Mr Randal?

7 **Mr Randal:** No, thank you, sir.

8 **Mr Muir:** Ms Buxeda?

9 **Ms Buxeda:** Hello, Mr Chairman, no, we have no cross-examination, thank you.

10 **Mr Muir:** Mr Leckie?

11 **Mr Leckie:** Yes, thank you, sir. Just one line of questions. So for all experts other
12 than Mr Girvan, and they're just an ONL methodology line of questions, which I'll
13 try and ask as efficiently as I can. Relying on Te Tangi a te Manu – if I address you
14 collectively – do you agree that the relevant statutory plan, in this case the District
15 Plan, is the starting point for identifying values to be protected in the ONL, and from
16 there you can add to that with a further assessment of those values on a project by
17 project basis. Do you all agree with that as a methodology from Te Tangi a te Manu?

18 **Ms Steven:** I'll start. The District Plan is only one source. I don't know if it would
19 even be the first source that you might go to to identify values. In many cases you
20 would refer to the primary landscape assessment that identified the ONL. In this case
21 there wasn't one. It was a different methodology that came up with the ONLs. It's
22 not the same as what we now use today. So as we acknowledged in our JWSs, there
23 was a very, very limited explanation of values in the District Plan. However, if you
24 read through certain parts of the District Plan, like issues and explanations and
25 reasons, you start to get a feel for what the plan identifies as the values. And that's
26 what I do. But you also have to interrogate a plethora of other information sources,
27 and ideally you would actually undertake community engagement in the consultation
28 to fully identify the values because we didn't have the luxury of being able to do that.
29 So you rely on published information. And there's a raft of documents that Te Tangi
30 a te Manu refers to that you might interrogate, but it's not an exhaustive list.

31 So it is quite a desktop and field-based research project to fully identify values. And
32 I think that's reflected in the vast raft of values we all collectively came up with,
33 which is way more than what's in the District Plan.

34 **Ms Gilbert:** I'm not sure I've got a great deal more to add to that. The District Plan is
35 a consideration that's set out in Te Tangi a te Manu, to factor that into account. But
36 in this situation the material is so out of date and out of sync with landscape
37 assessment best practice that really you kind of have to start again. And I understood
38 that Boffa Miskell's ONL report really did acknowledge that, that they needed to do

1 that work. And then we've developed it, I believe, more coherently through the
2 witness conferencing.

3 **Mr Parker:** I concur with the statements of Bridget and Anne, thank you.

4 **Mr Girvan:** The thing that I would add is that in doing the exercise we have done, it
5 hasn't been through like a public consultation process, which typically when the
6 values are included within a District Plan, they're verified through that process. So
7 when we look at what statutory weight is given to what has been recognised, the
8 District Plan has, and it's the confirmed values, our understanding has supplemented
9 that in accordance with best practice to date. So there's a difference in the
10 confirmation of values.

11 **Mr Muir:** Thank you. Mr Leckie?

12 **Mr Leckie:** Thank you. And a follow on question from that. In terms of the values
13 that - - oh, sorry, I skipped through the experts on the screen.

14 **Mr Muir:** Oh, Dr Brown, sorry. Dr Brown, I'm sorry.

15 **Dr Ra:** Sure. Thank you. Nothing further to add beyond what has been said by
16 the other experts, except to further note that mana whenua generally have a central
17 role in ONL discussions and conversations where those boundaries are determined
18 and discussed.

19 **Mr Muir:** Mr Brown?

20 **Mr Brown:** I really have nothing to add.

21 **Mr Muir:** Thank you. Now back to you Mr Leckie.

22 **Mr Leckie:** Thank you, sir. And now looking at the values that have been identified
23 within the District Plan. Would you agree – so they're recorded at paragraph 24 of
24 the joint witness statement, to save you all going to the District Plan, the first joint
25 witness statement. Starting with what the reasons for recognition are, and you've
26 collectively - -. Do you all agree that those reasons for recognition, as recorded in
27 the District Plan, aren't specific or iconic to the central western area that we've been
28 talking about this morning and apply generally across the entire ONL?

29 **Ms Gilbert:** I think that's a fair characterisation of what's listed in the District Plan.
30 However, as a landscape architect practising using Te Tangi a te Manu, to rely on
31 that level of description to describe landscape values would be technically
32 inadequate, deficient.

33 **Ms Steven:** And yes, I totally agree. However, just looking at the wording, the central
34 western part is very clearly an interesting part of the backdrop to the Otago valley.
35 And you could argue that it is a memorable feature for various reasons of the Central
36 Otago landscape. For a start, it's got the Thomson Gorge Road going through it and
37 the mining heritage. Now, those are memorable features of the Central Otago
38 landscape. So whilst not being specific, that central western part clearly has some of

1 those aspects. The only one it doesn't really is the crest of an extensive summer
2 plateau, which is a particular geomorphological distinction. And the skyline tors
3 obviously aren't relevant so much.

4 **Mr Leckie:** Would you agree, Ms Steven, though that there are other memorable
5 features within the ONL as well?

6 **Ms Steven:** Absolutely. You've got to look at them all together. They all contribute.

7 **Mr Muir:** Dr Ra or Mr Brown? Was it directed beyond Ms Steven and Ms Gilbert,
8 that question, Mr Leckie?

9 **Mr Leckie:** No. I just happened to be looking at them when they answered, sir. It was
10 a question for any of the experts at this time.

11 **Mr Muir:** Yes, yes. That's as I understood it, yes. Dr Ra?

12 **Dr Ra:** Thanks, Mr Leckie. Look, I think it's fairly well documented in Te Tangi
13 a te Manu that there are 31 points noting what needs to be considered in the definition
14 of an ONL and the defining factors that need to be weighted in that. As it's been
15 previously discussed by other experts, the date and stage at which this ONL received
16 its status was prior to Te Tangi a te Manu being formed. If this ONL was to re-go
17 through a process of classification, the comprehensive requirements outlined in Te
18 Tangi a te Manu would be central to how that was determined. So whilst the
19 statement is factual, the quote that is noted there is factual from being from the CODP
20 District Plan, it is limited in the extent of what it discusses as to what would define
21 an ONL under Te Tangi a te Manu.

22 **Mr Muir:** Thank you. Mr Brown?

23 **Mr Brown:** Yes, I agree. Schedule 1962 is very brief. And I don't think it captures
24 the values or attributes of the Dunstan Mountain range ONL at all – well, it does but
25 in a very, very skimpy fashion. So I think we've had to address this matter at some
26 length.

27 **Mr Leckie:** Thank you, sir. No further questions.

28 **Ms Sweetman:** I have a question though, which might go to you, Mr Leckie, is what was
29 the age of the Central Otago District Plan. When was it made operative?

30 **Mr Leckie:** I'd have to look that up, ma'am. I understand it's, if not at 10 years old,
31 it's beyond that potentially. But I would need to look up when it became operative
32 to give you - - -

33 **Ms Sweetman:** That would be some useful homework. To the landscape architects, when
34 did Te Tangi a te Manu come into effect, so to speak?

35 **Mr Parker:** 2008.

1 **Ms Sweetman:** Are any of you familiar with the proposed, almost to be made operative,
2 Otago Regional Policy Statement and its criteria around identifying outstanding
3 natural landscapes. I take it you are.

4 **Mr Brown:** Can I ask a question? I apologise for interrupting but I didn't hear the
5 answer before, I think it was from Mr Girvan in relation to when Te Tangi a te Manu
6 effectively became operative?

7 **Mr Muir:** May 22.

8 **Mr Brown:** May 22, yes, that's correct. Okay.

9 **Ms Sweetman:** Mr Brown, were you involved with the Otago Regional Policy Statement
10 hearing processes at all?

11 **Mr Brown:** No. No, I wasn't.

12 **Ms Sweetman:** This might be another matter of homework then. I'm just very interested
13 as to whether Te Tangi a te Manu was considered as part of the proposed Otago
14 Regional Policy Statement process, in particular, the formulation of Appendix 9 to
15 that document.

16 **Mr Brown:** What was Appendix 9?

17 **Ms Sweetman:** It is identification criteria for outstanding natural features and landscapes.
18 ? When did the Policy Statement process start. Was it 2017 or 19 or something?
19 ? It predates Te Tangi a te Manu.

20 **Ms Sweetman:** I'll let you answer that, rather than give evidence myself that I might know
21 the answer to.

22 **Mr Brown:** Commissioner Sweetman, I've done my homework. The system itself, the
23 planner behind me. 1 April 2008.

24 **Ms Sweetman:** 2008. So that well and truly predates.

25 **Mr Brown:** Well and truly predates.

26 **Ms Sweetman:** Thank you.

27 **Mr Muir:** Just arising out of Mr Enright's cross-examination and on the subject of
28 rehabilitation. I know that I recognise that question one has to some extent bled into
29 question two, and we might be able to deal with question two quite succinctly after
30 lunch. But could I just ask Ms Gilbert or Ms Steven at first instance this question.
31 Just premised by my understanding, and please appreciate that my professional life
32 was not as a resource management lawyer so that I deal with these things at a slightly
33 higher level of generality. An outstanding natural landscape need not obviously be
34 an unmodified natural landscape. Correct?

35 **Ms Steven:** That's correct.

1 **Mr Muir:** And looking at the possibility that 50 years down the track we might have
2 a fully integrated ONL again after rehabilitative efforts. I just wondered whether
3 either of you had reflected at any time on some of the best international examples of
4 rehabilitation of mining sites and their reintegration into high value natural
5 landscapes. At the Otago hearing, the Cromwell hearing, I referenced, and this might
6 have made its way to you at some stage, and simply a reflection of the fact that I
7 spent quite a bit of my life in the United States, I referenced what had been done in
8 the northern part of the Napa Valley, which is now known as the McLoughlin Natural
9 Reserve. It forms part of an outreach of one of the universities, Berkeley, I think it
10 might be, for its outstanding rehabilitative efforts. And is now regarded, as its name
11 suggests, as an outstanding part of the natural landscape of north western California.
12 Do you recognise that, aside from the significant challenges everyone identifies in
13 trying to rehabilitate this landscape at altitude and with so little water, that,
14 conceptually at least, what you describe as industrial landscapes can be rehabilitated
15 to a point where they can be reintegrated and regarded as a part of the natural
16 landscape, an outstanding part of the natural landscape, albeit that the human
17 footprint has at one stage in its history been large. Ms Steven?

18 **Ms Steven:** I don't have any experience or knowledge of any similar mountain range
19 type rehabilitation efforts. I am aware of mine restoration on the West Coast, for
20 example, but that's a different context entirely. It's typically depositional landforms
21 – alluvial, which are much easier to restore. And bush recovers very quickly on the
22 West Coast. Very different story in a dry, semi-arid, relatively high altitude range
23 land.

24 **Mr Muir:** That's why I used that example. It's the only one that I can sort of think of
25 which is broadly analogous. It's in a mountain range. It involved the construction
26 of a large tailings containment facility. Very similar sorts of challenges within a
27 broken mountain range structure, where about three or four times the volume of gold
28 was extracted from what is contemplated in this case. So it was a very large
29 undertaking.

30 **Ms Steven:** Yes. I think it comes back to what the values are that were there before
31 the mine started and whether it's possible ever to reinstate some of those values.
32 Ecologically, you may have some success, but even then, I don't think you could
33 ever reinstate the complex abiotic-biotic relationships that existed pre-disturbance.
34 So if you placed value on that and then it couldn't be recreated, superficially it might
35 look the same but whether it really was with the full suite of lichens and fungi and
36 soil biota and insects, we just don't have the knowledge to do that – or to even know
37 if we have done it.

38 **Mr Muir:** But it could theoretically be an outstanding natural landscape, albeit a
39 different - - -

1 **Ms Steven:** It would be a different kind of ONL. It wouldn't be the same. It might not
2 even have the same quality any more. It depends, as I said, on how an ONL is valued,
3 and we do place high value on ecological aspects. Other countries may not. They
4 may place greater emphasis on the way it looks, rather than the way it functions.
5 There's a very big distinction. And then the cultural dimension comes back into it
6 again, which are more intangible values that, as Dr Ra has said, certainly cannot be
7 replaced anyway. So you have to acknowledge that.

8 **Mr Muir:** Correct, in the sense that I acknowledge what Dr Ra says, yes.

9 **Ms Gilbert:** I agree with Ms Steven's comments. I guess the two examples that spring
10 to mind that I have experienced, or have seen, are quarry pits in the UK restoration
11 and they're often – well, not often, but on occasion turned into recreational features
12 and, you know, a quite rich landscape is established around them. Water-based rock
13 climbing restoration. And the other example is a little bit obtuse but it's quite recent
14 in my head so I'll mention it. It's a place in Japan called Naoshima, which is one of
15 the art islands, and it was copper mining, dominated by copper mining, and was, I
16 think acquired I suppose, by a philanthropist two, three generations ago, and over
17 time it has restored and there's been some very impressive cultural landscape
18 elements added to that landscape.

19 And what I would say in addition to Ms Steven in relation to those examples, is the
20 management is really critical to delivering that outcome. And it's intergenerational.
21 It's not something that is – you know, often when we're talking about development,
22 we're, you know, sort of 10, 15 years of management, and really the landscape has
23 healed. In this situation the ongoing management, I believe, is going to be for a
24 substantial period to deliver, if you like, that healing that is often associated with
25 those more successful examples.

26 **Mr Muir:** Something which perhaps the most recent development in the context of
27 the applicant's case, the endowment of this perpetual trust may speak to.

28 **Ms Gilbert:** Yes, but I have no experience or expertise in judging how that works.

29 **Mr Muir:** Yes. Good. Thank you. Now, Mr Parker, I saw you nodding your head
30 at various times. Did you wish to add to that at all?

31 **Mr Parker:** Not particularly, except to say that considering things 50 years out, there's
32 a lot of variables which could go either to the positive or the negative. And that's not
33 to say that it's not worth considering. Just stating a fact really.

34 **Mr Muir:** Thank you. Dr Ra?

35 **Dr Ra:** No further comment except to maybe emphasise the central word in ONL,
36 being “natural”, and consideration to that word, I think, aligned with the comments
37 by Ms Steven, where we can consider other aspects of a landscape to be outstanding
38 but a central word in this consideration is “natural”.

39 **Mr Muir:** Mr Brown?

1 **Mr Brown:** I was actually thinking of two mine projects in New Zealand. One of those
2 is the Reefton Oceania Gold Mine, which is in a state of progressive restoration. And
3 in addition to that, the Waymola coal mine down near Balclutha. Now, both of those
4 are quite major mining operations, or were in the case of the latter. And they've
5 undergone quite a lot of restoration. In the case of Oceania Gold, it's still ongoing.
6 And I think the two that sets these two mines apart from, for example, the one we're
7 addressing here is essentially their location. They sit within a framework of hills and
8 forests and, in fact, pine forest in some cases, and a setting that generally sort of
9 encloses them. And that's quite different to the situation we're contemplating here,
10 which is on the outer edge of a mountain range, which has significant exposure to
11 catchments around it. So whereas those two mines have a sense of isolation, that's
12 not the case in relation to the mine that we're addressing today.

13 **Mr Muir:** Just to round out, if there's anything from those comments that Mr Girvan
14 wanted to address at all?

15 **Mr Girvan:** There is a few comments but to keep this brief, I have considered what
16 level of modification may remain within a landscape and contribute to natural values,
17 and then remain natural enough to be an ONL, shall we say, used in that context. The
18 examples that I have thought when I've thought through that are – and I've raised
19 that before – the St Bathans example within COSC. So there is local mining
20 examples where the actual nature of mining activity, shall we say, brings people to a
21 place, and that becomes a value in itself, in the context of restoration. But yeah, I do
22 also concur with my other experts that it is about management, and it is about
23 ensuring that the process of restoration and rehabilitation is ongoing to achieve and
24 ensure those outcomes. I think that's an absolute requirement of what's necessary
25 there. But it is through that acknowledging what can be done, given the context in
26 which that occurs. That's where I've landed in terms of the ability to reinstate what
27 may be removed from the ONL during operation, which then forms part of that ONL,
28 that closure, because of the opportunities that that provides.

29 **Mr Muir:** Right. Thank you very much. Now, I haven't omitted anyone in terms of
30 rights of cross-examination? No. Anything else that anyone wanted to say before
31 we close off this part of the session and break for lunch?

32 **Ms Gepp:** Sir, could I ask?

33 **Mr Muir:** Yes, Ms Gepp.

34 **Ms Gepp:** One question arising to Mr Brown.

35 **Mr Muir:** Yes.

36 **Ms Gepp:** Just something I had noted. And I had circulated a document last night,
37 which we probably don't need to go to, but just while we've been talking about other
38 examples, I just noted at paragraph 72, Mr Brown, that you said you have experience
39 with the Kings Quarry Fast-Track project, which is within an identified bush clad

1 ONL. And I just wanted to clarify that that's not quite right, is it. It's surrounded by
2 an ONL but the actual quarry project is within a quarry zone, which is carved out of
3 the ONL.

4 **Mr Muir:** Did you hear that, Mr Brown?

5 **Mr Brown:** Yes, I can. And I do have a response. Yes, that is quite correct. In the
6 course of the hearings for the Auckland Unitary Plan there was a great deal of
7 discussion and mediation in relation to both mines and quarries – more particularly
8 quarries. And it was agreed eventually that all of the mine or quarry zones would be
9 excised from ONLs where they were found within them. In the case of the Kings
10 Quarry, which had actually been derelict for at least two decades to my knowledge,
11 it sits surrounded on three sides by an ONL. So, yes, the ONL doesn't cover it but it
12 wraps around it. So that's really what I meant.

13 **Mr Muir:** Thank you, Ms Gepp. Thank you, Mr Brown. We're going to break for
14 lunch now. And because I'm just a little concerned about time, I think that we're
15 doing okay but I'm not banking it yet. So I'm going to ask, if it's at all possible, if
16 we resume at quarter to two please, in 35 minutes time. Does that cause an
17 embarrassment to anyone? Very good. Quarter to two.

18 **Lunch adjournment**

19 **Hearing resumed**

20 **Mr Muir:** Dr Ra and Mr Brown and Ms Buxeda, is everyone back online?

21 **Mr Brown:** Yes.

22 **Dr Ra:** I think yes. I think we might just be waiting for our legal counsel.

23 **Mr Muir:** Ms Buxeda, are you back online?

24 **Ms Buxeda:** We are. Thank you very much, Mr Chairman.

25 **Mr Muir:** Let's get underway then.

26 **NUMBER TWO – benefit and effectiveness of rehabilitation**

27 **Mr Muir:** This is a topic that we have already at least brushed in the context of
28 question number one. And of course it will be a topic that receives undivided
29 attention I'm sure, in the context of the concurrent hearing in relation to ecology
30 issues. And I don't want to take advantage of Mr MacGibbon's fatigue by putting
31 him to too many questions today on this issue, because we'll be coming back to it
32 later in the process. That said, I would like us to address it reasonably briefly as a
33 standalone issue, and starting with Mr Girvan.

34 **Mr Girvan:** Thank you. So this question was raised within the joint witness statement
35 conferencing as well as question B. So I have similarly prepared some brief
36 paragraphs to run through in terms of the effectiveness of that. So in terms of the

1 confidence of how that is - - yeah, the benefits for people. So in terms of the benefits
2 and effectiveness of rehabilitation, it really is a part of the project that has been
3 conceived of when we've understood the effects of the mining. Apologies, I'm trying
4 to put those two things together in terms of I've answered one question and looking
5 at that question. Apologies. In terms of the benefits of this, so it's looking at the
6 context within which the proposed mining occurs. So there's a - -

7 **Mr Muir:** That's fine, Mr Girvan. There's so much information to constantly keep at
8 one's fingertips here. Would you like us to – we'll double back to you in a moment.
9 Is that alright?

10 **Mr Girvan:** Yeah, sorry.

11 **Mr Muir:** It's absolutely fine. Ms Gilbert, and then Ms Steven. Looking at the JWS,
12 I think it's the second of the two JWSs, there's a tri-element of scepticism on the part
13 of the EDS, Sustainable Tarras, and reflective of the expert evidence you have no
14 doubt been giving them on the subject. And that is apparent in the joint witness
15 statements. Briefly address those issues, Ms Gilbert?

16 **Ms Gilbert:** Yes, sir. I'll just try and be as brief as I can. It's probably three key
17 aspects, I think, from my perspective. First would be the idea of rehabilitation
18 encompassing mimicking of the natural topography. I appreciate the aspiration. I
19 have serious misgivings as to whether it can actually be achieved in this particular
20 topographical setting. And it would appear to be a difference of understanding of
21 what mimic means. I understand it to mean copy. And I think some of my colleagues
22 interpret it in a different way. It's fundamental to landscape and integration of a
23 development is the landform change. Lending in, if you like, to its landform setting.
24 But layered on to that, those concerns I guess, is the – and with drawing a lot from
25 the ecology JWSs – the uncertainties amongst either all or the majority of those
26 experts with respect to some of the rehabilitation strategies. It's not all of the
27 vegetation rehabilitation strategies. However, they seem quite serious. And I can
28 understand why, based on my experience of restoration in those sorts of landscapes.
29 I would be slavishly going through the JWS – I'm not sure you really want me to do
30 that?

31 **Mr Muir:** No. Acknowledging, as I think you must, that in parts the ecological
32 landscape, for all of its very important features like the cushion fields or the spring
33 annuals, and the high population of lizards, et cetera, is also in parts, indeed, it
34 presents quite significantly as a degraded natural landscape. Would you accept that?

35 **Ms Gilbert:** I'd be a bit uncomfortable about accepting that characterisation of it as a
36 degraded landscape, in the ecological sense, ecological dimension of landscape
37 values. Because that's not what my reading of quite a lot of the ecology evidence
38 that I've seen. I wouldn't say I'm completely across it. There's a huge volume of
39 material. I accept that it's the consequence of modification, the cushion fields and
40 what have you, as I understand it, they need to be grazed to a degree to have

1 flourished in the way that they have. So yes, I wouldn't be comfortable applying the
2 word “degraded”.

3 **Mr Muir:** And in a more holistic sense it may be the wrong word to use, in that there
4 are all these ecological features. But just in terms of the visual presentation of
5 someone who visited for, you know, on and off for the course of 24 hours, and who
6 has no knowledge of how that particular site would have presented in the early 19th
7 century for example. But it has the appearance of being significantly a weed-infested,
8 willow-infested, and other aspects which are not positives in terms of its current
9 ecological condition.

10 **Ms Gilbert:** Yes, I accept that. And in that respect, I acknowledge that there are
11 benefits to the landscape in terms of weed management and those sorts of strategies.
12 I guess, I think it's the dry land restoration, the cushion field and spring annuals, and
13 the Taramea herb field that seem to be the three vegetation communities that are most
14 under solution.

15 **Mr Muir:** Ms Steven?

16 **Ms Steven:** So first of all, one of the most important things to bear in mind is that the
17 mitigation is heavily reliant on the landform reshaping, rebuilding and sufficient
18 topographical what I call titivation, as well as the vegetative. Without those two,
19 we're not going to have much mitigation at all. So they are really important. It's not
20 like they're a nice to have sort of positive on the side type mitigation that you often
21 see with a lot of projects. This is essential, fundamental mitigation at a very large
22 scale. So that's the first thing. It's really important that it is done properly, or even
23 possible at all.

24 I agree with Ms Gilbert's comments that having read the ecological evidence – and I
25 rub shoulders with a lot of these ecological experts on a regular basis, working on
26 field trips, et cetera – so it's not an environment I'm not unfamiliar with, or the issues.
27 And I defer to their expertise and the advice they give to me, which I've heard over
28 many years now, about these ecosystems and, first of all, how valuable they are,
29 because it's all we have left. There's very little dry land left, especially on the basin
30 floors, which makes what's left on the range lands, even in its – a word I sometimes
31 use – depauperate, which means it's missing quite a few of the species that probably
32 would've naturally been there. However, having said that, they are still very valuable
33 communities because of what they are and what they represent. And the more we
34 lose, the more valuable the ones left become. And I think Mr Head made that
35 comment in his evidence.

36 So that's that. And also your comment about looking at it and thinking that it doesn't
37 look like a particularly ecologically valuable landscape. That is the problem with the
38 dry lands. They have been habitually, systematically, underrated and dismissed
39 because they don't look nice. They're not bush, they're not verdant, they're not
40 green. But for someone like myself, and others possibly, who understand the

1 intricacies of the insects and the plants that live there and how special they are. You
2 might have heard Di Lucas talking about the roots of [?]. They are incredible
3 landscapes, and you just have to take the time. There's a saying "there's none so blind
4 who will not see". And you really have to spend time in these landscapes to
5 appreciate them. And they're diminutive, which doesn't fit well with – we like big,
6 bold, colourful, things.

7 **Mr Muir:** In my defence, I was referring to weeds.

8 **Ms Steven:** The weeds too. Yes, they're there. But it doesn't mean that the native
9 species are also not there. And sometimes the weed species can hold an important
10 role in the ecology as well. Sweet briar does have its values in that landscape, and
11 so do tall trees for the birds. So it pays not to be too dismissive without really
12 understanding the intricacies of what you're looking at. And you do have to spend
13 quite a lot of time understanding that.

14 And coming back to the reliability. Because of the scale and the challenging
15 environment, I lack confidence that it can be achieved, even over a long time. I've
16 had quite a lot of experience trying to source different species, trying to make plant
17 communities as intact as possible, from my knowledge of what an intact community
18 should look like. You simply cannot get a lot of the species. Nurseries and
19 propagators do not grow them, either because nobody's ever asked for them and/or
20 they are difficult to propagate and/or they are difficult to keep growing. So if I can't
21 even source 10 plants of a particular species, I have very much doubt you could
22 secure hundreds or thousands of them. It just can't happen. So yeah, I have a lot of
23 concern over the rehabilitation.

24 **Mr Muir:** Thank you. Mr Parker?

25 **Mr Parker:** I will first of all address the comments by Bridget, Ms Gilbert, with regard
26 the mimicking of the landform. I might change microphone. It's giving me a
27 distracting echo. I have stated in the JWS that in accepting that the formation of the
28 landforms is going to be majority successful, that I don't expect that those landforms
29 are to be an exact replica of what's currently there. I think when the landforms are
30 first put in, they will be quite an engineered construction, a bit like a ziggurat or a
31 stepped pyramid. And I do expect that they will be able to significantly soften those
32 landforms to remove that very structured and stepped form. Having said that, within
33 the framing, is that going to return it exactly like it is. No, I don't think it will be.
34 And I don't think the applicant is suggesting that that will occur.

35 With regard the rehabilitation planting, I think the ecologists have probably more
36 experience than I do in that, so I do defer to their knowledge on that. However, in
37 planting on the central plateau in the North Island and on the coasts, I think until you
38 actually start to do it you don't really quite know how successful these things are
39 going to be. Areas, in my experience, areas that you think won't be successful end
40 up being successful because the various patterns formed by the wind, the eddies, et

1 cetera, actually miss certain areas so plants are quite successful in those and not in
2 others. Yeah, I've lost my train of thought, so I'll finish there.

3 **Mr Muir:** It's alright. It's having that effect on all of us today, this topic. I'll go first
4 to Dr Ra or Mr Brown. Dr Ra?

5 **Dr Ra:** Yes, I'm happy to jump in. Three very brief points from me. The first is
6 that I do not dispute that there are benefits of rehabilitation and that these do require
7 consideration as part of this application. Along with that, I note, like Ms Steven, that
8 as a locally based landscape architect, I have many uncertainties around whether
9 some of the proposed rehabilitation solutions are actually locally achievable at the
10 scale that we are looking at. I understand the pressure that our nurseries are under
11 locally, regarding the many fast-tracks that are arriving into this part of Aotearoa,
12 and that this is already putting strain on any sourcing that currently exists, despite the
13 need to probably have something that is more localised to service this particular
14 project. And the reality of achieving some of those outcomes need to be questioned
15 very seriously.

16 My third point is that I do defer largely to the ecologists, including those who can
17 speak to aspects of Ka Runaka ecological values and interests, but I wanted to note
18 that rehabilitation is much more than ecology, and that the socio-cultural and socio-
19 environmental factors that come in as part of rehabilitation must be considered
20 equally alongside the ecological. Rehabilitation is not an ecology-only conversation.
21 It is much broader than that.

22 **Mr Parker:** I was just going to say with regard to the nurseries and the lack of plant
23 availability, et cetera, I think that does go to, potentially, I don't quite fully understand
24 it, but this \$50 million trust. You could potentially with that money set up nurseries
25 specifically for the propagation of plants and get far greater volumes than are
26 currently available. That's not to say there are certainly species that are incredibly
27 difficult to propagate. But I would have thought that with that level of investment,
28 which will last for significant periods of time, then you could develop nurseries for
29 the specific purpose of providing these revegetation plans. I'd also say that Mr
30 Girvan in the JWS second statement said that he thinks the success of the
31 rehabilitation is very much in the management of it. And I would agree with that.
32 It's in the amount of effort that's going to be put in it. And I've said in my statement
33 in the JWS that it's quite possible that on the first attempt, very little will succeed,
34 and it will be a learning process. But if there is the will to make it happen, then I
35 think it probably could happen.

36 **Mr Muir:** The will and the resource?

37 **Mr Parker:** Yes, sir. I see Mr Barry's ears pricking up there with the suggestion there
38 may well be a sort of among the sort of multiplier or downstream economic effects
39 that perhaps this is where one should place one's money, South Island nurseries.

40 **Mr Barry:** Yes, we're learning things.

1 **Mr Muir:** Right. Okay. Thank you. Now, Mr Brown?

2 **Mr Brown:** Yes. Thank you for the opportunity just to comment briefly on this. I
3 noted the comment earlier about the change in landforms, and I think that's a
4 fundamental transition. Most of the landforms we're looking at at the moment have
5 a convex profile. At the end of mining, they will be much more concave in character.
6 There's not much we can do about that. Nor can we do much about the striations of
7 the high walls and so on. They will be there for a very long time. And I say this with
8 experience of quarries that I know in the North Island particularly.

9 In regards ecological restoration and rehabilitation. I accept the point that you make
10 that to lay people the site appears to be ravaged by weeds and in many respects
11 depauperate. It is certainly dry. And a lot of the plant species that are of value are
12 very small. We know that. It's not just the cushion fields but a lot of the other plants,
13 the understory plants as well, and even the grey shrub land does not traditionally have
14 a great deal of appeal to New Zealanders. So we haven't valued them very highly.
15 All I can say in terms of will this be returned to an approximation of its present, that
16 I don't know. We're heavily reliant really upon the ecological processes that are
17 addressed in the ecologists' JWS for that to occur. And a lot of uncertainty appears
18 to be expressed in that regard.

19 So I don't think as a landscape architect I can take that any further. All I can really
20 say is that I think the site will change quite fundamentally. And I don't believe that
21 it will return to even an approximation of its present state for a very, very long time.
22 And that's really where I've got to.

23 **Mr Girvan:** Thank you to my colleagues for working through that. But to answer the
24 question in parts, the benefit must start here. I think it's most clearly expressed when
25 you look at the mitigation and closure plan, which we've worked through as part of
26 this project. And why I start there is the benefits don't wait till the end to happen,
27 and that's a principle that's applied within this project. So when we talk about the
28 benefits of rehabilitation, where we can bring those benefits forward, we do. And
29 that's why we have a direct disturbance footprint, which is where the mining activity
30 occurs. And beyond that we have a mine regeneration zone. And the intent that sits
31 behind that is that the mine is operating within a landscape which is regenerating. So
32 we're retiring it from its existing pastoral end uses. We're putting those land uses
33 into managing that land use in a way which rehabilitates the habitats which occur in
34 those areas which aren't affected by mining activity.

35 It's important to recognise that within that mitigation plan, it's not about just waiting
36 till the end to mitigate effects, it's bringing forward what can be done at the outset of
37 mining activity. And then we've given it a closure plan, and that's where we're
38 looking at the benefits which can occur once the mining activity is completed. And
39 that's looking at what happens within that direct disturbance footprint and those
40 mining forms that are created, where they can be rehabilitated. The management

1 plan is around doing that, so enabling the landform modification. Mimic is the word
2 that has been applied. They're not going to recreate what was there, but they're going
3 to be sympathetic to what's there. So that is the intent of those landforms.

4 And that plan shows an understanding of what that means in this context. It also
5 introduces other aspects which aren't just the ecology. And I agree with Dr Ra in
6 terms of that, and there are benefits in terms of reintroducing recreation back into
7 that landscape. That is a value. And it's important that as part of closure that is
8 recognised so we have that as close as possible to Thomson Gorge Road. And it will
9 be a different experience because of the mining activity but it is part of the responding
10 to the cultural and the people dimensions which occur within that landscape. So they
11 occur alongside that ecological restoration. So you're experiencing a different
12 landscape which is being restored through mining activity, but then introducing
13 people back into the benefits of what that requires.

14 The second part then is the effectiveness of rehabilitation, which – and it isn't just
15 landscape that's come up with ensuring the effectiveness of that. And that's what's
16 expressed in the joint witness statement. I have worked quite closely with Dr
17 Simcock from Landcare and an ecologist, Kate Barber, to prepare that landscape
18 ecology rehabilitation management plan. And it's through that collaboration I've got
19 confidence that it works. They've worked in this, particularly Dr Simcock in this
20 experience, in this context, has a lot of experience with mine rehabilitation. So it is
21 about taking that experience into the what can be done in these landforms to ensure
22 the trajectory of ecology is improved. It's not about recreating what was there. And
23 it is clear it's not going to restore the pre-mining landscape. It's going to ensure that
24 the landforms are sympathetic in that context and can be managed to improve the
25 ecological contribution in that context.

26 The last point I just want to make, and it does relate to the question that was posed
27 as part of number two, is the future land use. And through the joint witness statement
28 and conferencing, all experts agree that the preferable long term land use is
29 conservation regeneration with managed public access. So in that it does
30 acknowledge that there may be some limited need for pastoral grazing to ensure that
31 the cushion field rehabilitation occurs. But it is about putting that landscape back to
32 a conservation context as an outcome.

33 **Mr Muir:** Mr Kensington, any questions?

34 **Mr Kensington:** Thank you. Just on that last point. Is that what is proposed to be the
35 outcome, a conservation focused management of the land. Is that how this proposal
36 before us is shaped?

37 **Mr Girvan:** As I understand it, at the completion of the mining activity there is a
38 covenant proposed to be put back on to the land, and that's the direction that covenant
39 enables. That's my understanding.

1 **Mr Kensington:** Would it be the land owner, the fee of the land owner, that is responsible
2 for ensuring that is achieved?

3 **Mr Girvan:** I understand that the covenant mechanisms include CODC as a - - I'd have
4 to come back to you to give that example. But I understand there's a council
5 component to that covenant requirement.

6 **Mr Kensington:** I think it comes back to something that Ms Gilbert talked about earlier,
7 and that's that management being critical in an intergenerational, in terms of getting
8 that long term outcome. And I'm a little bit unclear about how the current application
9 is going to achieve that, in a practical sense. I mean, we've got the plan, and we've
10 got some money potentially. Who's going to be responsible to make that happen
11 over time, is the real question I have.

12 **Mr Girvan:** As I understand it, the closure commitments are what's set out in the
13 closure plan. So that's the outcome, if the project's given consent, that that's
14 delivered. Beyond that, I understand that's the maintenance of those outcomes is
15 what the Trust is set up to ensure. So you've got the closure commitments sitting
16 with the project, and then you've got the maintenance of that outcome being looked
17 after through a trust. And in terms of experience I've had in other contexts, that's, as
18 I understand it, the same mechanism that's applied within the Waihi project. So it's
19 a goldmine project. So it's a way to ensure that the governance and funding is set up
20 to look after what's already been established as part of closure.

21 **Mr Muir:** Could I just interject at this point. So there is an RFI from the panel that
22 relates to this, which no doubt the applicant is working on at the moment, but the
23 subject of the inter-relationship between closure obligations, the bond, and the
24 intended trust, is receiving the applicant's attention and will be addressed?

25 **Mr Leckie:** Yes, sir, absolutely. It's being worked on at the moment and, as you say,
26 that, in terms of output, our intent is to land it in the RFI for this Friday. It's to be
27 filed. And certainly hearing the dialogue is also helpful, and it's addressing those
28 points.

29 **Mr Muir:** Ms Sweetman?

30 **Ms Sweetman:** Mr Girvan, in the first instance, what would your view be if the ecological
31 outcomes or objectives weren't achievable in the circumstances?

32 **Mr Girvan:** In terms of an aspect of what the ecological objectives deliver, this comes
33 down to what can occur at the start of the project. So in terms of an assurance that
34 the – and this is the mine regeneration zone where I'm starting with. So I think that's
35 a key thing that is delivered as the mining activity is undergoing – is ongoing. So
36 that would be – the context within which rehabilitation can occur would change if
37 that wasn't achieved. So if you didn't set the land aside as a regeneration zone as the
38 mining occurs, it would make it less likely that the work done within the development

1 footprint, so within the bits that are disturbed within the context of an area which
2 isn't, would make it harder. So it would be more difficult.

3 In terms of the ecological dimension of rehabilitation on the mine elements
4 themselves. I think from a landscape perspective, it is about ensuring that those
5 modified landforms can be put back in the context of this landscape. So I think there
6 would be a lesser ability to do that if you weren't achieving the habitats which exist
7 there now, and which is indeed through the management of that rehabilitation to
8 achieve that. I think that they would be less assimilated, less put back into that
9 landscape without that outcome. I think you still would achieve some reduction in
10 effects through the landform modification itself. So I think kind of integrating the
11 land, the shape, shall we say, when we can. I think that the outcomes are really that
12 they then provide the suitable growing medium, which is what they do, the soils and
13 stuff to support what's growing on it. And then the planting and pest management
14 and other dimensions which sit alongside that to achieve those outcomes. I think if
15 that weren't to occur, you would get less benefits in that direct disturbance footprint.
16 I think that's why it's an integral part of setting the land aside where you can at the start,
17 and then work with what's disturbed within in it to bring back those mining elements
18 within that to occur.

19 So that's really the intent. That's why I've got confidence in it achieving, because
20 it's brought about those dimensions together. And it isn't just "we'll wait till the end
21 and then we'll do something about it". It's ensuring that the system itself is doing
22 something about it as the mining activity is working. So if it weren't to occur, if it
23 weren't to be successful, it would provide less benefits which are proposed.

24 **Ms Sweetman:** Have you reviewed the proposed conditions to the extent that should
25 elements be less successful, is there ways or means of trying to achieve better
26 outcomes?

27 **Mr Girvan:** Yes. So in terms of the landscape and ecology rehabilitation management
28 plan, it's subject to annual review of an ecologist and a landscape architect. And so
29 it's acknowledging that these things will develop over time and you need to check in
30 what's working and what's not working and adapt accordingly. So that's a specific
31 intent of those conditions. So there's reporting and monitoring of what the
32 trajectories are, and adapting the management to ensure those trajectories are moving
33 forward in a positive way.

34 **Ms Sweetman:** Do you think there's sufficient criteria, standards, whatever, to find three
35 conditions to measure the annual reporting against?

36 **Mr Girvan:** I think the landscape ecology rehabilitation management plan itself is quite
37 detailed in terms of the expectation of what occurs. Including it sets out the risks that
38 might occur. It sets out the management to address those risks. So the conditions
39 themselves refer to that plan. Within that, there's a couple of dimensions to that. In
40 terms of the landform aspect. I think the landform aspect, it's a specific part of the

1 conditions. It refers to each of the mine elements and then the expectations around
2 that in terms of the landform component circles that it has broken down into the –
3 it's not just refer to the plan, it's refer to the plan and the conditions set that out. So
4 I think that's the appropriate response.

5 In terms of the ecology aspects, again, it's referring back to the plan in terms of what
6 those trajectories will be, and the performance standards which are needed to achieve
7 those objectives.

8 So if I haven't quite answered your question about the conditions, I think the
9 conditions refer to the plan and then require the monitoring of the plan to achieve the
10 outcomes of what's intended. Is that your question?

11 **Ms Sweetman:** Roughly. Do any of the other experts want to comment on my questions
12 to Mr Girvan? Ms Gilbert?

13 **Ms Gilbert:** Thank you for the opportunity, Commissioner Sweetman. What occurred
14 to me during that sort of exchange is that when there's uncertainty around planting
15 like this, let's say vegetation restoration, I'm aware of situations where applicants,
16 partly to manage their financial risk, will test, do experimental planting, prior to
17 actually pulling together their final proposal. And the best example of that I can think
18 of is the Northern Gateway, where there were all sorts of planting techniques tested
19 because of the significant investment. So in looking at this application, I was left
20 wondering if that was a really lost opportunity. I'm just saying it's not going to help
21 you. But I just make that observation.

22 But I also think that because there's just uncertainty, and acknowledged uncertainty
23 and risk, that probably you need to set out some plan B and plan C options, and be a
24 little more clearer on what those look like. So that there's a pathway to achieve the
25 mitigation and rehabilitation that is all part of the application. And in terms of the
26 conditions, I mean, in the JWS, I think there's a lot of work required in the conditions
27 from the landscape side of things.

28 **Ms Sweetman:** I see Mr Parker nodding his head with that as well.

29 **Mr Parker:** I think more detail needs to be put in. I think Mr Girvan would say that
30 they don't have the detail in there to allow for the adaptability. But I would suggest
31 that you put the detail in and then allow for a mechanism to change it if all parties
32 agree to it. I think generally, the conditions and the LERMP are a good starting point,
33 but I take them more as a performance specification into which you actually need
34 empirical measurements to test whether success is being achieved.

35 **Ms Sweetman:** Ms Steven, did you have anything additional? Ms Gilbert, sorry. I just
36 sort of jumped to Mr Parker, but if you had anything further?

37 **Ms Gilbert:** Well, actually I do, yes. And the other thing that I think, you need to test
38 it top down and then bottom up, in terms of objectives, methods, outcomes. That's
39 my landscape brain. I know the planners will look at that, you know, articulate that

1 in a different way. But the objectives need to relate very coherently to your methods
2 and your outcomes, your performance standards. And you need enough meat in there
3 for a certifier to be able to make sense of it.

4 **Ms Sweetman:** Thank you. Ms Steven?

5 **Ms Steven:** My overall view on this strategy. My view is that there is no place for
6 experimental methods in a proposal like this. Because the values that it's seeking to
7 address are too high, the scale of the project is too big, and the significant adverse
8 effects, especially the residual ones, are just simply too – of such a magnitude that I
9 don't think there's any place for experimental conditions, with unknown future
10 outcomes. Now I appreciate that Rhys has said that there will be work done as the
11 project progresses, but a lot of this rehab will happen after the fact, after the damage
12 is done, and you can't go back. So if the pit is dug, it's there forever, or for a very
13 long time anyway. But if the rehab doesn't work, and we don't know what plan B
14 and plan C is actually is because we're relying on experimental methods, we don't
15 know what the outcome's going to be and we can't foresee whether it's going to be
16 of such value and positive outcome that it will actually be mitigation. It might be
17 even worse.

18 I'm particularly mindful of weeds that pop in as soon as you disturb ground. Winds
19 blowing weeds are a real problem. Bird-spread weeds are a real problem. They're
20 very difficult to control. As soon as you open up the ground, they will be in there.
21 Now, the scale of this work is such that weed control itself will be a major work for
22 a very long time. And on top of that you've got rabbits. I don't know if you're aware
23 of how many goats live in that area. It's probably in the thousands. You can see
24 them on the Cromwell Gorge highway now, regularly, to the point that they've got a
25 sign up saying beware of wildlife. Rabbits, deer, goats, pigs, they are all huge
26 challenges, which are on top of the challenging growing environment. And I just
27 simply think that's it's just too risky, too experimental.

28 I mean, I'm all for nature, natural regeneration and ecological restoration, but not in
29 this context. I just don't think that it's appropriate. The outcomes are too uncertain.
30 I did have something else in my mind just as I was saying that.

31 **Ms Sweetman:** I think that matter will be something we'll be traversing on Friday with the
32 ecologists as well, obviously. And the reason I raised that was particularly the
33 relationship of the proposed softening of the pit faces and the TSF as well. I was just
34 bearing in mind we're straying quite a bit into ecology and not so much into the
35 landscape side. While appreciating that ecology is part of the landscape overall
36 assessment as well. My question was really more around what is the implication if
37 rehabilitation isn't as successful as Mr Girvan, and are the conditions sufficiently
38 robust in the circumstances that rehabilitation isn't so successful as anticipated as
39 well?

40 Did you have anything further, Ms Steven, or we'll go to Mr Brown and Dr Ra?

1 **Ms Steven:** The only other thought quickly was that the fallback position is everything
2 gets sown in brown top sweet verna grass. Now, that probably would survive. But
3 imagine what those landforms would look like if they were just grass and weeds,
4 which is a potential outcome.

5 **Ms Sweetman:** Thank you. Mr Brown?

6 **Mr Brown:** So this is an incredibly complex issue. I just want to go back to something
7 I said right at the start. And I think in terms of public impressions of the proposed
8 mine and changes to the landscape of the Dunstan Mountains, landforms will be
9 critical. Now, vegetation and rehabilitation will help to a certain extent alleviate
10 some of those changes. But as I said earlier, the high exposed walls, the ELF's and
11 WELF's and other artificial landforms will leave quite a significant imprint on the site
12 and its wider setting for a long time to come. I don't see those being easily resolved
13 by the sort of plant mixes that are typically found on the site at present. It's not as if
14 this is going to suddenly return to beech forest, or even pine forest. It's not going to
15 be suddenly buried in a sea of vegetation. You're talking about quite a fine-grained
16 landscape with fine-grained landforms. So the change will remain evident for a long
17 time to come.

18 **Ms Sweetman:** Thank you. Dr Ra, do you have anything to add?

19 **Dr Ra:** No further comments from me.

20 **Ms Sweetman:** Thank you.

21 **Mr Muir:** Commissioner MacGibbon, did you have any questions of the experts, or
22 do you intend to hold your powder dry till Friday?

23 **Mr MacGibbon:** No, look, there is one. And thank you for the opportunity. You're right,
24 we will discuss I think a lot of this in detail on Friday. But from a landscape I'm
25 interested to hear, and I know we've covered a lot of territory and don't need to take
26 up too much time, but what in each of the experts' minds successful rehabilitation
27 would look like and function as. And I've heard just in the conversations today, we
28 heard present state, natural state, a new state, and even reference in some of the
29 information provided reference to a past state. What is it, disregard for now whether
30 the techniques exist to be successful with rehabilitation, what would successful
31 rehabilitation look like from a landscape perspective. I guess it's an open question
32 to all experts, but perhaps starting with you, Mr Girvan?

33 **Mr Girvan:** Thank you. And it is one of those questions that requires the complexity
34 of working in collaboration with ecology, so I appreciate that kind of dimension there
35 too. And as I understand it, it is looking at the habitat types which are represented in
36 this context, and looking at restoring those as part of the rehabilitation process. By
37 that I mean there is cushion fields, which I understand is part of what some of the
38 adaptation works sits in. There's tussock, there's scrubland and there's taramea.
39 There's those four kind of key components. So when I think of rehabilitation I took

1 of what's represented in this landscape and the trajectories that can be provided to
2 increase that representation in this landscape.

3 **Mr MacGibbon:** Thank you. Anyone else amongst the landscape team experts who have
4 a similar or different view?

5 **Mr Parker:** I would suggest that if the LERMP as proposed was implemented and
6 established, then that would provide an element of success. However, I'd also note
7 in the JWS that even if the LERMP is applied perfectly, that there are still residual
8 high/significant landscape effects. So when we're talking about the success of the
9 LERMP, it's incomplete.

10 **Dr Ra:** I can add some perspectives as well. I think from a Ka Runaka perspective,
11 we measure success differently when it comes to rehabilitation. I think how we
12 would define success would be our ability to gather tuna, eels, from those water
13 bodies and safely eat them and harvest them. It would be to access some of our taoka
14 species, like the taramea, and use it for the cultural purposes that we did, as a perfume,
15 without being at risk of any contaminants being up against our bodies. It would be
16 to gather resources like harakeke or other species that we were using for weaving.
17 And to undertake our cultural practices, maximising a landscape that had been
18 rehabilitated to an extent that those taoka species were still of value and no risk to us.

19 **Mr Muir:** Do you have eels in the water bodies at the moment?

20 **Dr Ra:** I would have to defer to the ecologists for any studies of whether that has
21 been part of their investigations.

22 **Mr Girvan:** I think I can answer that in terms of the natural character. We understood
23 there was no fish currently in the water bodies, so, no.

24 **Mr Brown:** I think from my perspective, as I've already said, there is no possibility of
25 reinstating the site. And that's because the changes to landform would be so
26 fundamental, at least for a very, very long time. Well outside the dimensions of a
27 human life span. In terms of vegetation cover, I think a lot of the concerns that have
28 been raised reflect the sort of biophysical dimension of landscape, and I acknowledge
29 that. But in terms of perception of the ONL, I think that an approximation of the sort
30 of natural vegetation patterns that we currently see across the site would be what we
31 would hope for. I'm just not sure it will be realised. And there does seem to be some
32 contention over that in terms of the ecological JWS.

33 **Mr Muir:** Ms Gilbert, do you have anything additional to add?

34 **Ms Gilbert:** I have nothing further to add. Mr Brown articulated it pretty well.

35 **Mr Muir:** Thank you very much. Anything else, Commissioner MacGibbon?

36 **Mr MacGibbon:** Not at this stage, thank you, no.

37 **Mr Muir:** Thank you very much. Commissioner Barry?

1 **Mr Barry:** No, thank you.

2 **Mr Muir:** Thank you very much. I can't recall whether counsel indicated an intention
3 to cross-examine on this issue, but that's not definitive. Is anyone making an
4 application for leave to cross-examine on this issue? Yes. Thank you.

5 **Ms Gepp:** Mr Girvan, sorry, I'm just going to have to take you back to a question
6 about your effects assessment, because one thing that I – just looking through my
7 notes and I couldn't quite see if I had an answer from you on this. And that's the
8 question of whether, post-closure, the particular, the mine footprint or the central
9 western part of the ONL, whatever small subscale you want to use, whether you
10 consider that that will qualify as ONL post-closure?

11 **Mr Girvan:** Yes. So, I just have to go a little bit of complexity but then I'll couple back
12 out. But the scale that's draw within that map is the central western Dunstan
13 Mountains. I accept that it's part of that, which may not qualify as an ONL during
14 the mine operation. At closure, that's where I consider that, if you were drawing, and
15 this is one of the complexities of the question here, you don't just do that as part of
16 an effects assessment. It's an assessment to look at where the boundaries go. So in
17 answering this question, I found it a bit of a tricky question to answer because it's
18 about doing an area-based where's the ONL. We've accepted it's an ONL and we've
19 understood the values at that scale. What I'm accepting is if you were doing an
20 exercise of mapping ONL, and then one was there at that scale, you would map that
21 bit out.

22 What I'm saying at closure, so to pull back to your question, given the rehabilitation
23 that is proposed, it will be different to what it is now, but in the context of the Dunstan
24 Mountains ONL, I consider you wouldn't likely draw it the same way that you've
25 drawn it today – or the same way that it's being drawn as it stands.

26 **Ms Gepp:** Alright. So then the reason I wanted to clarify that is because I want to
27 understand what you – I assume you've had input into condition C34, which says:
28 "The primary objective of the LERMP is to enable the modified mined landscape to
29 be reintegrated into the Dunstan Mountains Outstanding Natural Landscape." So my
30 question is, when the condition says enable it to be reintegrated into, what does that
31 mean?

32 **Mr Girvan:** I think that reiterates my point actually. That should the ONL be – I'm
33 sorry. Should the ONL be redefined during the mining operation, it may well be
34 defined in a way that omits the mine. The intent of the rehabilitation is to ensure that
35 wouldn't be the case. But if you were drawing the ONL line, the Dunstan Mountains
36 ONL scale, there would be no reason to draw it differently to what it is today.

37 **Ms Gepp:** So I understand from the first JWS that, so that's your opinion but the other
38 five landscape architects disagreed with that. They take the view that it wouldn't be
39 reintegrated into the ONL.

1 **Mr Girvan:** I understand that. I consider one of the differences may be the amount of
2 time that it might take the rehabilitation to occur.

3 **Ms Gepp:** What sort of time – what are the differences between you and them, or
4 between them, between you?

5 **Mr Girvan:** I understand.

6 **Ms Gepp:** Can you expand on that. What do you mean by the amount of time?

7 **Mr Girvan:** I consider that the rehabilitation, and this is what I talked about, occurs
8 during the mine operation itself. So when I talk about when that closure scenario
9 might occur, that you would reintroduce the – well, it depends when you're defining
10 the ONL itself. But yeah, I consider that the mechanisms within the LERMP are –
11 within the project, shall we say – are that should the mine cease and you were
12 redrawing the ONL at that point, you would consider the whole and there would be
13 – would likely be drawn – it would be, I guess, in the way that it's drawn today.
14 That's where I'm at.

15 **Ms Gepp:** Thank you. My other question is to Mr Parker. Mr Parker, in the second
16 joint witness statement at paragraph 91, you've said "conditions must be written in a
17 way that" – is that the right words. "Conditions must be written in such a way to
18 ensure ongoing efforts are embedded, including full renewal methodological
19 processes to start again if necessary." So my question is about what you mean by the
20 words "including" and from there on?

21 **Mr Parker:** I think if you were just to write one methodology and put it in on side and
22 then leave it just as that, you would have very limited success. You might get a 20%
23 strike rate and it would be limited to the more sheltered valleys. So what I was trying
24 to get at there is that there needs to be the allowance for multiple attempts to get
25 things to work in the various different areas. And I think it's going to be difficult to
26 achieve. I mean, that's what the ecologists have said, and they have more experience
27 than I do. So that's what I was getting at. That there needs to be a device, a
28 mechanism, to make sure that this is tried multiple occasions.

29 And I do also think that there's only so far that conditions can achieve this. What is
30 likely to achieve it is a committed and passionate community who intimately know
31 the site and want to see this happen. If that could somehow be achieved, then that
32 would help guarantee things far more than what we in this room devise as conditions
33 to make it happen.

34 **Mr Muir:** Mr Enright?

35 **Mr Enright:** Thank you. Mr Girvan, obviously you're not an ecologist, correct? You
36 accept that. And so you are necessarily reliant on the expertise of the ecologists in
37 terms of the viability of delivering the rehabilitation plan. Do you accept that?

38 **Mr Girvan:** Yes, I do.

1 **Mr Enright:** I just wanted to return to Commissioner Sweetman's question about what
2 is the outcome if the ecological rehabilitation is not achieved. And in your answer
3 to that question, you said there'll be less benefits provided if it's not successful. I just
4 want to test that with you because isn't it, in fact, the case that if the ecological
5 rehabilitation is unsuccessful, then the ONL values will not be restored as at the
6 closure of the mine at year 30. That's correct, isn't it?

7 **Mr Girvan:** It is correct partially, with the qualification that the rehabilitation includes
8 both mined areas and non-mined areas. That was part of my answer to Commissioner
9 Sweetman's question.

10 **Mr Enright:** Okay. And again, this is a matter for the ecologists to provide advice to
11 the panel on, but at least partially, if it's unsuccessful, the ONL values cannot be
12 restored in terms of the mine site there, as you say, at year 30. Do you accept that?

13 **Mr Girvan:** Except within the direct disturbance footprint, we have relied on the
14 effectiveness of rehabilitation and what the benefits within that footprint would be.
15 Yes, if that proved not to be the case.

16 **Mr Enright:** Well, it's not just the benefits will be less, the ONL values will not be
17 restored.

18 **Mr Girvan:** Yes. That's the qualification. It's within that direct disturbance footprint,
19 in my head, that's what I'm thinking. And it's – when you're looking at – this is
20 where the complexity of this bit is that would you draw the line where it is today? Is
21 it still accepted as an ONL. So that hasn't changed. And there's no proposal to change
22 the ONL. If you were redrawing the ONL and the direct disturbance footprint wasn't
23 achieved to the level that it's anticipated to achieve through the management, that
24 would cause you to consider that, again, whether it would be included. So I am
25 relying on the workability and the effectiveness of what is proposed to do what it can
26 to achieve that outcome.

27 **Mr Enright:** So just to try and put it in a yes or no question. If at year 30 the ecological
28 restoration rehabilitation has not been delivered, then within the direct disturbance
29 footprint the ONL values will not be restored at year 30, correct?

30 **Mr Girvan:** And again, the ONL values and the direct disturbance footprint, I guess,
31 yep, yep, yep, that would be correct.

32 **Mr Enright:** Thank you. And so just in para 63 of the JWS number two, do you have
33 that?

34 **Mr Girvan:** Para 63. Yes.

35 **Mr Enright:** So just as in your experience, the greatest risk is the gap between the
36 consented landscape concept and what is built and maintained down over time. I just
37 wonder if you were willing to reconsider that assertion. Because isn't the greatest
38 risk instead both the achievement of landfill, which is a point Mr Brown's made

1 today, and also the delivery of the ecological rehabilitation. Aren't they the greatest
2 risks, rather than matters of whether there's compliance with conditions?

3 **Mr Girvan:** Apologies. I had the wrong joint witness statement.

4 **Mr Enright:** That's fine. I can ask you the question again. We'll just wait till you have
5 that in front of you. Para 63.

6 **Mr Girvan:** Yes.

7 **Mr Enright:** Okay. Great. So you've said there the greatest risk is the gap between the
8 consented concept for what was actually built and maintained down over time?

9 **Mr Girvan:** Yes.

10 **Mr Enright:** And you've referenced enforcement conditions, et cetera. I'm just
11 wondering if you're willing to reconsider that assertion, because really the greatest
12 risks are twofold. One being delivery of the landfill, which is the point Mr Brown's
13 made today in his evidence. The other being the ecological rehabilitation. Aren't
14 they the two greatest risk factors here from a landscape perspective?

15 **Mr Girvan:** In terms of what I was referring to there, the consented landscape concept,
16 when I speak of that, that is the closure plan. So that is the landforms that are sought.
17 What's maintained and governed over time, yeah. Let's read on. It's around ensuring
18 that those landforms are created and then looked after, and were implemented and
19 then maintained to achieve that outcome. So I still think that is the greatest risk.

20 **Mr Enright:** So perhaps we're saying the same thing then. Those are two key risks
21 you've identified.

22 **Mr Girvan:** Exactly. It is making sure that the landforms are achieving what they can
23 to be in accordance with what the LERMP and the conditions set out, so that they
24 can be sympathetic in this context, and then they do support the ecology.

25 **Mr Enright:** And do you agree with Mr Brown's evidence he just gave earlier that
26 achieving that landform is quite a complex undertaking and there's no certainty of
27 delivery?

28 **Mr Girvan:** It is complex. In terms of the certainty of delivery, that's where the
29 management plan is about looking at reporting and responding to what's occurring.
30 So I think that there will be an outcome, and the management will direct and optimise
31 what that outcome can be. Yes.

32 **Mr Enright:** I've just had a question from Mr Parker, which is about offsetting, sir, but
33 it probably is related to rehab. And it's paragraph 9 of the JWS, part 3. You do seem
34 to be quite an outlier position because you've recommended that there could be an
35 offset approach of 65 hectares of land. I just want to understand that?

36 **Mr Parker:** Yes, I'm definitely an outlier and I think I've been roundly accused of
37 being a maverick on this one. And academically, I think it's a bit pseudo-sciencey

1 what I've suggested. But my point is basically that at the end of the installation of
2 the LERMP, if it is successful, we still have a high landscape effect. And so I've
3 said that if this is to be granted, well, that landscape effect is primarily generated
4 from the footprint of the Rise and Shine pit, which has a 65 hectare pit. I don't think
5 it's an equivalent offset. Not even sure that it's a compensation. But bloody hell, we
6 may as well get 65 hectares of regenerated landscape somewhere.

7 **Mr Enright:** So you accept that Te Tangi a te Manu doesn't recognise the notion of
8 having a - - -

9 **Mr Parker:** No, that's right. And I proposed it because the fast-track legislation
10 specifically says to investigate innovative techniques. And it's under that guise that
11 I've put this forward. My colleagues have said that I'm a bit of a heretic for doing it.

12 **Mr Enright:** And you'd accept there's some practical issue. For example, in your report
13 from December, I think it is 2025, 1 December, you've suggested the location could
14 be determined by the Regional Council, in consultation with stakeholders and
15 referenced private and public?

16 **Mr Parker:** Yes. And where I was coming from that is that it might not just be one
17 plot of 65 hectares. It might be within the Otago region that 65 hectares of riparian
18 corridor are improved. So hence, as my colleagues have said, there really is no way
19 of achieving an equivalence of offset or comparison. And at the end of the day, even
20 if you were to install those 65 hectares somewhere, you've still got a hole on site
21 which is causing high landscape effect.

22 **Mr Enright:** Alright. So in summary, you accept it's not on the table. It would involve
23 other areas of land that might be owned by third parties, and so there are some
24 practical difficulties with the recommendation?

25 **Mr Parker:** I do accept that. I think they could be overcome. I mean, which farmer's
26 going to say no to having some free riparian planting given to him, or her.

27 **Mr Enright:** Thank you.

28 **Mr Muir:** Mr Randal? No? No. Thank you. Mr Leckie?

29 **Mr Leckie:** No, sir. No questions.

30 **Mr Muir:** Thank you. Are there any points that have emerged out of the cross-
31 examination the panel would like to discuss with any of the experts? No.
32 Commissioner MacGibbon, no?

33 **Mr MacGibbon:** No, I'm fine, thanks.

34 **Mr Muir:** No. Right. Excellent. That closes out that topic. Right. The next topic
35 is the consequences of – I'm caught in that terrible position where I can't either read
36 it with my glasses on or with my glasses off.

1 **NUMBER THREE – preservation covenant**

2 **Ms Sweetman:** The preservation covenant and its implications on its revocation and
3 expansion.

4 **Ms Gepp:** I would like to lead. Mr Girvan?

5 **Mr Girvan:** There were some maps prepared to help with this question in terms of - -
6 [inaudible]

7 **Mr Girvan:** In doing this there was two things I'd like to talk about. And one was the
8 understanding of the conservation covenant as it applies to the upper Rise and Shine
9 Creek. So I've kind of looked at what that means in that context. And that's where
10 the revocation effects occur. We're able to bring those maps up. It's map 2. So as
11 part of undertake my assessment outputs, prior to looking at the effects I'd
12 understood what was in the conservation [inaudible] heritage aspects within the
13 upper Rise and Shine Creek. So I've prepared these maps to show what that means
14 in the context of the direct disturbance footprint and where the mining activities
15 occurred in that context. So that's to understand the effects that will occur in that part
16 of the covenant. So then go to map 3. That's to look at what the implications are at
17 closure. Looking at the same part of that covenant and what the effects are in that
18 context. I shared this during conferencing with my experts because we'd done the
19 work to understand what that was. So that was to understand the implications in that
20 place.

21 **Ms Gepp:** Mr Girvan, I'm reading the body language and we have comments that Ms
22 - - -

23 **Mr Girvan:** The model. Sorry, the model. I've shared this as a model. There was a
24 three-dimensional model. We did the fly-through down - -

25 **Ms Gepp:** I remember the fly-through but they're not - - -

26 **Mr Girvan:** Yeah, so this was the data on the – it was the – yeah, anyway, so that's - -
27 -

28 **Ms Gepp:** Can I just clarify that this is a map that hasn't been circulated to parties. Is
29 that right?

30 **Mr Girvan:** No. What it is though it's the closure plans and the mitigation plan, and
31 it's got the covenant boundary drawn on it. So it's to provide clarity around what
32 that area is specifically. And that includes the NZAA, the data that we'd identified
33 as part of the understanding that that occurs.

34 **Ms Gepp:** Have you done another plan of the full covenant area?

35 **Mr Girvan:** Yes. So that's what I was going to get to. So yeah. So that's the fourth
36 plan. So this is the full covenant area. So that shows the full covenant area in the
37 brown colour. The red colour is the area to be uplifted from the covenant. And the

1 blue dashed line is that Bendigo to the upper Rise and Shine Creek. So that's why
2 I've prepared those other two plans to show where that is. It's the red area that's
3 going to be uplifted. So that's what's proposed to be uplifted from that by the
4 covenant. The green is the conservation areas that adjoin it. And if we go to the fifth
5 plan. As part of the closure, that's the proposed covenant extent to be put back within
6 the site and extending into Ardgour Station. So part of the understanding of what
7 will be removed and then what will be expanded, that's what I've set out in those
8 plans.

9 Coming to the implication of that, and this is one of the questions that we'd requested
10 to consider as part of K. So I've prepared a few paragraphs just to go through in
11 terms of that, if that's okay. So yes, I haven't prepared a standalone assessment for
12 the Bendigo conservation covenant, but I have considered the specific character and
13 values of that covenant area. So that was the upper Rise and Shine Creek area. And
14 at the time I prepared the assessment I knew the NZAA assessment and so I prepared
15 that. And that's when I responded to the RFI, to the panel's request, I set out what I
16 understood at the time of that revocation. So I understand the relevant covenant
17 objectives are, from a landscape perspective, it would reduce the scale. It would
18 reduce the area that's involved as part of the revocation and subject to full protection.
19 And it does include some of those place specific parts of the upper Rise and Shine
20 Creek. So there will be some specific heritage aspects within that which would be
21 removed. So those plans set out my understanding of what that is. So you can see
22 from that NZAA application what those site-specific parts are in terms of heritage.
23 So I've sought to help you understand what is involved in that.

24 The point that I didn't get to is that I accept that there will be some location-specific
25 values which have been directly and permanently affected. That's what will happen
26 as part of the covenant loss. But such adverse effects do need to be taken into account
27 in terms of the wider extent of that covenant land. That's not the only part of the
28 covenant land. And they need to be considered in the context of that adjoining
29 conservation areas. So they are part of what's involved in what's to be covenanted
30 and the expanded land subject to covenant. So that's why I've prepared those maps,
31 so we can see kind of what's removed, what those values are, especially in the upper
32 Rise and Shine Creek area, and then what will be expanded.

33 So while I accept that the proposal wouldn't materially affect – while I accept the
34 proposal would materially affect some existing important covenant values, my
35 opinion remains that should be weighted alongside what's got back and the proposed
36 expanded protection. Rehabilitation, so what's required in terms of the rehabilitation
37 within the site. And that includes that closure and long term management outcomes.
38 I guess I have considered the ecological uplift in that wider area, resetting access
39 along the Thomson Gorge track. The browse control and exclusion, which occurs
40 within that context as well. So we're looking at the natural character values of that,

1 in the understanding that will strengthen over time and assist with enabling that
2 broader landscape values to be maintained over.

3 So that's the basis that I've made that assessment.

4 **Mr Muir:** Thank you. Ms Steven?

5 **Ms Steven:** During the conferencing at 64, we've all, the executive and the rest, Mr
6 Girvan, considered that the landscape proposed would not be protected as an outcome
7 of revoking the covenant. Fundamentally, the purpose of revoking the covenant or
8 uplifting is to enable the very values which it's meant to be protecting to be left
9 unprotected. And that's the crux of it. So they're incredibly vulnerable to being
10 removed. Although it's a little bit more complex than that because, and I guess I'm
11 stepping into planning here, but it is pertinent to understanding the vulnerability. The
12 District Plan relies on protective mechanisms like covenants over tenure review
13 properties. And certain standards do not apply to those areas which have been
14 through tenure review, on the basis that covenants and the like protected those values
15 that were important. So on that premise, it's a planning question. I haven't quite got
16 my head around what it means. But if you uplift the covenant, then the District Plan
17 can no longer rely on that mechanism. But it's a property that came out of tenure
18 review. So those are some of the complications you have to think about in terms of
19 if we lift the covenant, what remaining protections are there under the District Plan.

20 **Ms Sweetman:** I'm sure Mr Crisp is listening very carefully.

21 **Ms Steven:** I'm not going to go any further than that because it's outside my area. But
22 fundamentally it means the values are vulnerable to being either destroyed
23 completely, which some of them no doubt will be. The heritage tables or the heritage
24 elements, I think about 11 out of 13 were going to be completely destroyed.
25 Thomson's Gorge Road will no longer be a road that people can use. The landform
26 of the lower Rise and Shine would be obscured by the WELF, or what I call the
27 WELF, the western engineered landform, and the pit itself would start to eat away
28 some of the landforms that I've identified as important. Some of the really important
29 ecology that that covenant's meant to protect will be removed. So we know that there
30 will be values that are destroyed.

31 Now, the wider covenant that's being put back, on the face of it looks great. But it
32 comes back to there's no way we can mitigate or compensate. It's an effort of
33 compensation, I suppose, for the values that have been destroyed and will be lost
34 permanently. You can't put them back. So it becomes a compensation type approach,
35 and we've all agreed that that's a methodology we don't have at our disposal.

36 **Mr Muir:** So if these premises, if we can call them that, on which the conservation
37 covenant was established cannot be reinstated, which you have said forcefully they
38 cannot, and it's difficult to argue in respect of heritage sites that are lost permanently,
39 you must be correct. Are you saying that because it doesn't fit technically within
40 either a mitigation definition and there is no opportunity to compensate that – there

1 is conceptually no opportunity to compensate that. What is being proposed by way
2 of the enhanced, or expanded, conservation area is irrelevant to our considerations.

3 **Ms Steven:** No. Certainly not irrelevant. But the weight given or the way it can be
4 interpreted has to take into account the fact that you cannot recreate those values or
5 create something else that's of supposedly similar value. I'm not even touching on
6 the cultural aspect of it. That's for Dr Ra to address. But you could have as big a
7 covenant as you like but it still will not make up for what you are losing. And it's
8 also the whole recreational experience, and we haven't even touched today on the
9 Shepherd's Creek paper road, which I talked about quite a lot. There's a lot that we're
10 losing because of the revocation of the covenant, and I just don't think,
11 methodologically, that putting larger cover, especially with the uncertainties around
12 the implementation and management, and it's purely for ecological reasons. There's
13 no additional recreation benefit, there's no additional heritage benefit that I'm aware
14 of. So it's purely for ecological pups, as far as I can see, which is only one aspect of
15 what the covenant is seeking to protect.

16 **Mr Muir:** Well, the new proposed route would be within the expanded conservation
17 area, wouldn't it. And that's a recreational route.

18 **Ms Steven:** Yes, it is. I have read the recreational, the reconvened JWS, and there's
19 some doubt about the value of the road, I understand. Because of the way it was
20 built, not that that can't be addressed. But I've also addressed at some length in my
21 evidence that it's not a like for like road in terms of the actual experience, the
22 recreational value and landscape experience.

23 **Mr Muir:** That's an issue that we can explore in due course. There might be room
24 for reasonable people to have different views on that subject. I suppose for the more
25 hardcore four-wheel driving community, this might be regarded as an opportunity
26 rather than a loss. But we'll consider that in due course. Thank you. Ms Gilbert?

27 **Ms Gilbert:** I might be looking at this from a slightly different perspective and it's been
28 very helpful to see Mr Girvan's plans for the first time now. And I wondered if the
29 hearing, Ms Thomson I think, could scroll back to one of the earlier plans in the set
30 that show - - yes, actually yes. That's the one. Yep. That's great. Thank you. Now
31 I just wanted to explain, or just check in, that in the joint witness, the first joint
32 witness statement, we discussed the landscape assessment considerations relevant to
33 the Bendigo conservation covenant. I'm not sure we were that clear in how we went
34 through that. Because those various points that we make at paragraph 55 relate to
35 the green - is it green? Blue dashed areas. If I may, sir, can I just point it out?

36 **Mr Muir:** Yes.

37 **Ms Gilbert:** So it's this area through here, the Rise and Shine Creek, that particular
38 area, that I understand where those specific covenant considerations apply to
39 maintain landscape value. So it's not the full Bendigo conservation covenant. Well,
40 my understanding is it's the upper Rise and Shine Creek area. And that the broader

1 area, I'm sure the lawyers will correct me, is referred to as the Umbrella Covenant
2 area. And in that area, there is a requirement to protect the heritage features and
3 elements.

4 So the more restrictive controls, if you like, apply in that part of the direct disturbance
5 footprint. And that those matters are set out at our paragraph 55, which include the
6 protection and enhancement of natural character, protecting the land as an area
7 representative of the significant part of the ecological character of the Dunstan
8 ecological district. Then it goes through maintaining landscape values. And beneath
9 that is the idea of maintaining the area in its present state, acknowledging that
10 vegetation will change over time, excluding mining, forestry and tracking from the
11 area, maintenance of the special visual and scenic values of the Rise and Shine Creek
12 area, and maintenance of the significant heritage values of the Rise and Shine Creek
13 area, as described in Jill Hamil's work.

14 So, we might jump to the response to the RFI 5 that you will have received on Friday
15 afternoon. And that, from my perspective, was intended to be very helpful in
16 understanding what the landscape values are of that particular area, and I guess, the
17 broader area. But in particular, the upper Rise and Shine Creek area, where we've
18 got this particularly focused covenant applying. And, I don't know whether it's
19 helpful to explain my review of that material. I have scanned it. There's literally
20 hundreds of pages of that. And I was surprised, I have to say, sir, to see the material,
21 in that it's a landscape based interrogation. And the material appears to have been
22 prepared. It's certainly not prepared by Boffa Miskell and it doesn't appear to have
23 been prepared under landscape expert guidance. And the reasons that's evident to
24 me, as a landscape architect, is there's no provenance of the data sets. There is no –
25 it's mapped vegetation, but I have literally no idea where that vegetation mapping
26 has come from.

27 The detailed mapping, of which I think there's 58 sheets per data set type, does not
28 show the extent of the upper Rise and Shine Creek area. And then probably more
29 fundamentally, and sort of from a pragmatic level, is this complex sort of mapping.
30 We have a technique these days called GIS mapping, which is how we manage this
31 sort of complex layering of data sets. And it allows you to, just as you do on district
32 plan mapping, zoom in and zoom out and interrogate, turn layers on and off,
33 understand where the various things are happening.

34 So with that sort of under my belt, I feel very ill-equipped to assist the panel on
35 whether the development can maintain landscape values in the covenanted area.
36 Because you need to identify carefully and clearly what those landscape, existing
37 landscape, values are.

38 ? Thank you, Ms Gilbert, for that response because that's pre-empted a question that I
39 was going to have of you. I guess, what can we do. Are you suggesting – is there
40 another way of having that information presented to you to assist?

1 **Ms Gilbert:** I imagine, I think it's a survey company that pulled together the mapping.
2 I imagine they've done it in some sort of flat file that can be converted into a GIS
3 [inaudible].

4 ? That's what you described. You can just move around.

5 **Ms Gilbert:** Oh, absolutely, yep. Yes, I'm sure Commissioner Kensington knows what
6 we're talking about. I'm sure the mapping data sets could – well, I hope they could
7 be transferred into that sort of format. But I think landscape expert advice is required
8 to guide that process and to think about the vegetation mapping, for example. It looks
9 to me like it could be LINZ Landcover Database, which is a nationwide, very coarse-
10 grained mapping resource. The ecologists on the project I'm sure have done some
11 mapping. That should be integrated into the resource. Any heritage mapping should
12 be integrated. And I think the RFI panel was, they refused at going through Jill
13 Hamil's book and thinking about how those various networks and features should be
14 mapped as part of the exercise to understand.

15 So it's basically going through our paragraph 55 in the first witness statement and
16 thinking, well, what would a landscape architect need to understand in terms of
17 reliable data fields to evaluate those matters.

18 **Mr Muir:** Ms Steven, you're holding - - -

19 **Ms Steven:** Yes, sir. Could I just go back to the covenant itself. I did a title search
20 and copied out the covenant to actually try and make sure I knew what we were
21 talking about. So the objectives that Bridget quoted apply to the land described in
22 the first schedule of the covenant, which is a whole lot of sections of land, as well as
23 sections 11 and 12, which is the RAS area. So it applies definitely to more than just
24 the Rise and Shine Creek. All those objectives are about protecting landscape,
25 protecting natural functioning. So for example, that's where the [?] pit is. That
26 applies to that and all the landscape values of all the land within the covenant area,
27 which is a lot bigger than just the Rise and Shine Creek.

28 **Ms Sweetman:** We do have a copy of the covenant, which was submitted with the
29 application, in E04 of the application.

30 **Ms Steven:** Yes. And the Rise and Shine area is singled out pretty much solely for its
31 [inaudible]. They've described an objective as the Rise and Shine Creek, where the
32 public may gain access to historic mining sites, and you're not allowed to construct
33 tracks on it. So that was thought about for those particular reasons. So that was my
34 understanding of where we need to identify where that's happening and where that
35 factory might be going.

36 **Ms Sweetman:** Dr Ra, do you want to add anything?

37 **Dr Ra:** No, I have nothing further to add, thank you.

38 **Mr Muir:** Mr Brown?

1 **Mr Brown:** No, I don't think so. I mean, I've been through the covenant and the
2 objectives of it. And I see a conflict between the covenant objectives and what is
3 now proposed for part of the covenant area. I can't really say much more than that at
4 this stage.

5 **Mr Muir:** Is there anything emerging from those comments that you want to respond
6 to before I pass it over to the panel?

7 **Mr Girvan:** No, nothing, thank you.

8 **Mr Muir:** Mr Kensington?

9 **Mr Kensington:** Well, other than just exploring with Ms Gilbert a bit further about this
10 information that you've received, or that we've all received, and what do we do with
11 it in order to assist us in understanding of this issue. Because it's left hanging a little
12 bit, and I don't know what the answer is and maybe we just need to kind of think
13 about that a little bit ourselves. But is there anything you can help us with
14 immediately or not?

15 **Mr Girvan:** That comes over to me. To help clarify where the covenant is in terms of
16 the mitigation and closure plan, that's what my maps 2 and 3 were specifically
17 seeking to do. What that hasn't done is the updated information which was provided
18 to the panel. So the maps 2 and 3 show what I understood in terms of NZAA layers.
19 So that's logged on to those maps. That would be my suggestion. There is mitigation
20 and closure plans provided as part of the project that include the direct disturbance
21 footprint, which is the area. So I think using those as a basis to understand where
22 those values occur would be helpful.

23 **Mr Kensington:** And would you do that as a group of experts together or?

24 **Mr Girvan:** It would be a mapping exercise. I agree with Ms Gilbert that in terms of
25 the landscape clarity around what's provided I think is important. It gives an
26 application a use to it. That putting it on those plans specifically would be of
27 assistance. That would be what I'd recommend.

28 **Ms Gilbert:** Can I just ask a question of Mr Girvan. Have you had a chance to look at
29 that information that's come through?

30 **Mr Girvan:** I have. In terms of – I haven't had it as GIS information so I've had the
31 same ability as you have to look at it as - - -

32 **Ms Gilbert:** Yes. And so do you understand what vegetation provenance?

33 **Mr Girvan:** I haven't looked at it at that level of detail. So I can't answer that question.
34 So in terms of their provenance, I'm not sure.

35 **Ms Gilbert:** I guess I'd just like to emphasise that because of the complexity and the
36 scale of the area, it needs to be an interactive GIS mapping dataset. It can't be piecing
37 together 58 different layers.

1 **Mr Muir:** Are you suggesting that the panel should issue a RFI requesting that this
2 interactive mapping be done?

3 **Ms Gilbert:** Yes.

4 ? And then a follow up with expert analysis of that. Is that what you – the next step?

5 **Ms Gilbert:** Can I speak to this. It probably brings to light a pretty tricky question or a
6 situation that I'm, in a way, finding myself in. In that the resource required to input
7 into this process and to bring evidence, I think, that has been pretty important, given
8 how it's been carried through into the joint witness statements, is – I don't know
9 what's reasonable to expect in terms of ongoing expert commitment on behalf of
10 other groups. And I don't know how to articulate that in any other way than I've just
11 explained. There is potentially still a lot of room.

12 **Mr Muir:** I think that probably we'll discuss this as a panel. Probably the answer lies
13 back in the hands of counsel representing the relevant parties. We are responsive as
14 a panel, and have done it in the past, to memoranda which have suggested that we
15 should seek answers of a particular type, and we have issued RFIs accordingly. And
16 I will pass this back at first instance to counsel. If they consider that that is an
17 appropriate thing to do and then we will consider as a panel whether to issue an RFI
18 accordingly. We will also discuss it ourselves. Is that an appropriate response?
19 Right. Thank you.

20 **Mr Girvan:** Sir, if I could just answer that question in terms of the vegetation. So that
21 was a question that Ms Gilbert raised, and that has been included within the graphic
22 supplement that is part of that assessment that I prepared. So the vegetation mapping,
23 which is relied upon in terms of the assessment, has already been set out but it's not
24 on the plans that Ms Gilbert's referring to, which I didn't prepare. But yeah, to
25 understand that question, that is the RM Ecologist drafting.

26 **Ms Gilbert:** So that suggests to me, Mr Girvan, that it would be quite straightforward
27 to import that layer of mapping into a dataset, and it's the ecologists' vegetation
28 mapping, correct?

29 **Mr Girvan:** Yeah, that's correct, and it has already been provided as part of the
30 assessment material that's available as part of the application. That's my point in
31 terms of understanding the provenance, that's identified and it is included within the
32 assessment. So if you're after an understanding of the vegetation mapping - - -

33 **Ms Gilbert:** Yes, but in relation to that covenant area, you need to be able to zoom in
34 and see the aerial photograph base, the contours, the vegetation layers, the heritage
35 elements, and the slope analysis.

36 **Mr Girvan:** Yes, I understand that point. It's not an interactive plan. It's a fixed plan.
37 That's the challenge you get, it's not an interactive digital thing. It's a printed plan
38 that can form part of the application, so yeah.

39 **Mr Muir:** Ms Sweetman?

1 **Ms Sweetman:** No.

2 **Mr Muir:** Commissioner MacGibbon?

3 **Mr MacGibbon:** No, I'm fine, thank you.

4 **Mr Muir:** Mr Barry? No. Cross-examination on this topic? Ms Gepp.

5 **Ms Gepp:** Mr Girvan, just briefly in terms of the premise of this topic, which is
6 conservation covenant and its revocation and expansion. Would you agree there's no
7 expansion of the conservation covenant. There's a proposal for a different new
8 covenant between the landowner and CODC. There's not an expansion of a Reserves
9 Act conservation covenant, is there?

10 **Mr Girvan:** That's how I understand it.

11 **Ms Gepp:** Are you aware of the criteria for the panel to consider when assessing an
12 application to revoke or amend the covenant?

13 **Mr Girvan:** I have looked at the objectives of the covenant in terms of that aspect of it.
14 If that's what you're referring to?

15 **Ms Gepp:** No, I'm referring to the criteria in the Fast-Track Approvals Act about what
16 the panel needs to consider when determining an application to revoke a covenant.
17 Are you aware of those?

18 **Mr Girvan:** I will need to be reminded please.

19 **Ms Gepp:** Okay. So one of those is for the panel to consider the purpose of the
20 covenant and the conservation values of the land concerned. Alright. Now, your
21 original landscape, the VNL assessment, didn't include an assessment of consistency
22 with the purpose of the covenant?

23 **Mr Girvan:** No.

24 **Ms Gepp:** And I think everyone has treated that phrase "the purpose of the covenant"
25 as meaning in this case the objectives, the stated objectives of the covenant. Is that
26 right?

27 **Mr Girvan:** Yes, that's correct. And that's what I considered within the RFI from the
28 panel.

29 **Ms Gepp:** So the covenant objective – just looking now at the covenant itself – and
30 the second covenant objective is about protecting the land as an area representative
31 of a significant part of the ecological character of the district, Dunstan Ecological
32 District, as referred to in the draft PNAP report?

33 **Mr Girvan:** Yes, as I understand it, yes.

34 **Ms Gepp:** And then the next – have you got a copy of the covenant there?

35 **Mr Girvan:** I do not. I have the objectives you're referring to.

1 **Ms Gepp:** Okay. That's fine. Then the next one is maintaining the landscape values
2 of the land as referred to in the application for exchange of property rights submitted
3 to the Commissioner of Crown Lands. Yes?

4 **Mr Girvan:** Yes.

5 **Ms Gepp:** So just noting at this point, and I'll come back to this, there's nothing about
6 the PNAP, the Protected Natural Areas Programme, in the landscape objective, is
7 there?

8 **Mr Muir:** Mr Girvan, would it be helpful for you to have the relevant criteria under
9 the Fast-Track Approvals Act in front of you?

10 **Mr Girvan:** That would be helpful please. Thank you.

11 **Mr Muir:** This is schedule 6, paragraph 45.

12 **Mr Girvan:** Yes.

13 **Ms Gepp:** So the questions at the moment are about those conservation objectives
14 within the covenant. But useful for you to have those criteria there for you to go back
15 to them. My question was, in the third objective, maintaining the landscape values
16 as referred to in the application for exchange of property rights, there's nothing in
17 that about the Protected Natural Areas Programme, is there?

18 **Mr Girvan:** Not that I understand, no.

19 **Ms Gepp:** So if we turn now to that document that's referenced, the application for
20 exchange of property rights. Have you got that, or got access to that?

21 **Mr Girvan:** Again, I don't have any internet. But I have reviewed that. Yes, I
22 understand the document. Thank you.

23 **Ms Gepp:** Alright. And then you've agreed in the joint witness statement, I think,
24 that it's, it's pages 11 and 12 which set out visual and scenic values are the most
25 relevant part of the – in terms of landscape values that are being referred to in the
26 conservation covenant?

27 **Mr Girvan:** Yes. And that refers to upper Bendigo Creek. Yes, I understand that.

28 **Ms Gepp:** Okay. So it refers to the south Dunstan Creek landscape priority area,
29 Bendigo Hills and upper Bendigo Creek, Rise and Shine Creek?

30 **Mr Girvan:** Yes.

31 **Ms Gepp:** Okay. So then looking at the upper Bendigo Creek area, the landscape
32 values referred to, which are specific to this area of upper Bendigo, rise and Shine
33 Creek, include smooth rounded landform, vegetation pattern, cultural history, silver
34 tussock spear grass, wetlands, remains of early sluice workings that form part of a
35 network of gold workings, and one of the few remaining areas with relatively intact
36 short tussock from valley floor to ridge top. And it goes on to say the historical

1 cultural overlay contributes to its character and appeal. So those are some specific
2 landscape values for that specific Rise and Shine Creek area, aren't they?

3 **Mr Girvan:** Correct, yes.

4 **Ms Gepp:** Alright. And just have a look also at page 16 of that document, because
5 there's some specific Thomson Gorge discussion there.

6 **Mr Girvan:** Yes, understood.

7 **Ms Gepp:** That says: "This area of 576 hectares will be protected by a conservation
8 covenant under the Reserves Act. The covenant will be designed to maintain the area
9 in its present state. The aim is to protect the landscape of the upper Rise and Shine
10 Creek, the historic gold mining cottages, dams, et cetera, and the silver tussock
11 grassland." And it allows some patch burning of shrubland and over-sowing and
12 topdressing, OSTD, but then says mining, forestry and tracking would be excluded
13 from the area. So that is also relevant when thinking about what are the landscape
14 values that the covenant seeks to protect. That would also be relevant, wouldn't it?

15 **Mr Girvan:** I agree, there's a clear intention there.

16 **Ms Gepp:** There's what?

17 **Mr Girvan:** Clear intention of those values. I agree with that definitely.

18 **Ms Gepp:** Okay. So a clear intention as in they won't be altered, they won't be
19 retained?

20 **Mr Girvan:** The proposal includes aspects which are referred to being excluded from
21 that area. So mining would be excluded from the area as well.

22 **Ms Gepp:** Okay. In terms of the landscape values, the project is not consistent with
23 maintaining those landscape values, is it?

24 **Mr Girvan:** That's where I've looked at what that covenant's requiring, and I do accept
25 and acknowledge that there will be some of the activity that's proposed and that
26 context will have – it's not consistent with what that's requiring. Where I've looked
27 at from a landscape value is what is the overall context within which the application
28 is proposed. I accept that there will be mining where this covenant refers to as should
29 be excluded from that area. I've understood it in terms of the context of the broader
30 covenant.

31 **Ms Gepp:** I think you're getting one ahead of me. I haven't actually asked you that
32 question yet. So if you could just answer my questions.

33 **Mr Girvan:** But mining will in that area where it's talked about being excluded.

34 **Ms Gepp:** And the landscape values that it describes will not be maintained in that
35 upper Bendigo Creek area?

36 **Mr Girvan:** Well - - -

1 **Ms Gepp:** Just focusing on that specific area at the moment before we get on to
2 broadening it out to other areas.

3 **Mr Girvan:** Yeah. I think that's where I did the landscape values, one of which is
4 mining, when we get to that point. I think the landscape is the whole. So it's putting
5 those things together. That's where I'm helping the panel understand what that means
6 is where I've got to. Like, this is – there will be mining an area where it refers to not
7 being, but the landscape is broader than that is where I understand. The landscape is
8 the whole covenant, shall we say.

9 **Ms Gepp:** I'm not really following you. I'm asking you about the landscape values
10 described on pages 11, 12, and 16, which are things I read out, such as the silver
11 tussocks, the wetlands, the historic features, the historical and cultural overlay, those
12 values. So not just the fact that it says mining is excluded but those values within
13 this area won't be maintained, will they?

14 **Mr Girvan:** Within this area. Within the covenant. Within the upper Rise and Shine
15 Creek.

16 **Ms Gepp:** Yes. Which is what this is describing.

17 **Mr Girvan:** Yes.

18 **Ms Gepp:** Yes, they will not be maintained?

19 **Mr Girvan:** Yes. In that area I agree with that. They won't be maintained.

20 **Ms Gepp:** Okay. So then you say in your RFI response: “However, that is not
21 necessarily inconsistent with maintaining the landscape values of the covenanted
22 land. The balance of the covenant, including the much larger area would continue to
23 protect the representative landform and vegetation pattern.” And I think you've just
24 said, you've said orally just now that there will be permanent effects but these need
25 to be taken into account in terms of the wider covenant land and the adjoining
26 conservation areas. And my question to you is why. Why should that wider context
27 be taken into account?

28 **Mr Girvan:** When undertaking a landscape assessment, I think it's important to
29 understand the context within which that change occurs. And yeah, I'm accepting
30 that there's going to be site scale implications and there will be site-specific elements
31 which are lost. I think to understand the effects on the whole is important. So yeah,
32 I don't think it's the end of it in terms of understanding the landscape effects, where
33 that's a point in which the elements are removed at a site scale. I think it's
34 understanding the implications of that within the landscape.

35 **Ms Gepp:** Okay. I'll take you back to the criteria of the Fast-Track Act, which talk
36 about the purpose of the covenant and the conservation values of the land concerned.
37 So that's where we started. And then we moved to the covenant, which says maintain
38 the landscape values referred to in the application for exchange of property rights.
39 And then we went to the application for exchange of property rights and it's got some

1 very specific landscape values, which are what the covenant tells us should be
2 maintained. So why is it relevant to consider what might be in adjoining conservation
3 areas or in the balance of the covenant?

4 **Mr Girvan:** Where I've taken that is understanding the consequence in this landscape.
5 So I've understood that there's site scale, place specific aspects which will be lost,
6 but it's still important to understand what that means in the context of this landscape.
7 So I think, and in my view, where the implications occur are within that specific part
8 of the covenant. We still need to understand what the covenant overall – what values
9 in that landscape the covenant's seeking to address. And yeah, I've looked at the
10 habitat aspects, which are relevant, and I've looked at the water. Urgent aspects
11 which are relevant. This is part of that but it's needing to take into account the whole
12 when it's at each considering what is genuinely affecting this landscape.

13 **Ms Gepp:** I'll put it to you that neither the fast-track criteria nor the covenant, nor the
14 application for exchange of property rights, supports that view of a wider landscape
15 context and instead is focused on the particular landscape values and whether they –
16 of that are described in this document – and whether they will be maintained.

17 **Mr Girvan:** And I acknowledge that in the site and in the specific context of the mining
18 activity, there will be a loss of those values. I still think it's important to understand
19 the context within which that occurs. That's from a landscape assessment.

20 **Ms Gepp:** I'm asking you though about the criteria that the panel needs to apply. This
21 is not a Resource Management Act assessment. In terms of those criteria, it's not
22 talking about a landscape scale assessment, is it. It's talking about the landscape
23 values described in this document.

24 **Mr Girvan:** It's compromised the values. Yeah. And I guess that's where in terms of
25 – I understand landscape to be the context within which change occurs. I think that's
26 still an important aspect. And sometimes there will be direct effects on a site, and
27 you need to understand the implication of that within the context of that landscape.
28 So I do consider there will be specific values lost within the site. In landscape terms,
29 to understand the effects on landscape values, you still need to understand the context
30 within which that change is apparent. So that would be the landscape approach that
31 you would typically do. It's not just a site-specific assessment. You need to consider
32 context to understand the implication on landscape value.

33 **Ms Gepp:** You haven't done an assessment under this criterion section 45, or clause
34 45, of the - - -

35 **Mr Girvan:** I haven't. No, I haven't.

36 **Ms Gepp:** No. So it's possible that this is a different approach to what you're used
37 to?

38 **Mr Girvan:** That is true in terms of assessing this aspect of the Fast-Track [inaudible].

1 **Mr Muir:** Ultimately then I think it's a matter of submission, assumed submission,
2 from you that the witness has undertaken what he considers a landscape. He's
3 assessed it on the basis of landscape effects. He's not necessarily assessed it under
4 that particular criteria, and it wouldn't be the first witness in the context of this
5 proceeding where there's been a selective approach possibly to the criteria around –
6 for assessment on any one or more of these issues. So do we need to take it any
7 further in cross-examination?

8 **Ms Gepp:** No, we don't need to take it any further, sir. That was where I was - - -

9 **Mr Muir:** From a landscape perspective one could possibly understand the witness
10 zooming in and zooming out. And once you zoom right in and you see the effects
11 with the Rise and Shine valley that are protected in terms of the covenant and you
12 see that they are not matters that can be in any way remediated by taking the
13 perspective back out again and looking at the wider. Is that what you're saying?
14 From the covenant's perspective, you've got to focus on precisely what is happening
15 within that is protected by the covenant.

16 **Ms Gepp:** The question that the Act asks is what, taking into account the purpose of
17 the covenant, those objectives are very clear. It is not a broadened assessment where
18 - - -

19 **Mr Muir:** And you're focusing then on the purpose of protecting this bit. In this
20 particular valley system we're talking about the tussocks and things of that nature.
21 So you're focusing on the things that are being protected within the Rise and Shine
22 valley in particular?

23 **Ms Gepp:** I'm focusing on what is described in this document, sir, this application for
24 exchange of property rights, because that's what the covenant refers to. So I'm trying
25 to ask the witness to focus on what the covenant actually refers to and to provide and
26 opinion based on what the covenant refers to.

27 **Mr Muir:** Which part of the covenant?

28 **Ms Gepp:** Pages 11, 12, and 16.

29 **Mr Muir:** Can I have the covenant in front of me please.

30 **Ms Gepp:** Sorry. It's 11, 12, and 16 of the application for exchange of property
31 rights. It's clause C3 of the covenant.

32 **Mr Muir:** We are talking specifically about the upper Bendigo Creek area – sorry.
33 Upper Bendigo Creek Rise and Shine – sorry. Upper Bendigo Creek Rise and Shine
34 Creek?

35 **Ms Gepp:** Yes.

36 **Mr Muir:** And we're talking about Thomson's Gorge?

37 **Ms Gepp:** Yes. I think it's referring to the same landscape unit.

1 **Mr Muir:** It is, yes. So your position, Ms Gepp, is that it is not, you say that under
2 the relevant provision in the schedule to the Act, we are, in this context, required to
3 focus on the conservation values in those areas. You say that they are substantially
4 affected by the proposal and that it's not appropriate, in making that assessment, to,
5 as I call it, take the focus back out to an area wider than upper Bendigo, Rise and
6 Shine and Thomson's Gorge. Is that the essential issue?

7 **Ms Gepp:** Yes, sir. And to be fair, it's not me saying they're substantially affected.
8 It's Mr Girvan saying they're substantially affected.

9 **Mr Muir:** Yes, yes. That's right. And Mr Girvan, and we conclude this exchange by
10 saying, well, Mr Girvan has conducted his landscape assessment. From a
11 landscaper's point of view he considers a contextual approach is correct. And your
12 position is that that does not align with what the Act requires in this respect. Correct?

13 **Ms Gepp:** Yes, sir. Yes.

14 **Mr Muir:** Can we take it any further than that?

15 **Ms Gepp:** No, I don't need to. Thank you.

16 **Mr Muir:** Thank you very much. Who does this go back to. We're going to have a
17 swap, are we?

18 ? I do have one more question just in relation to the new CODC covenant, and again,
19 this may be a matter that Mr Girvan thinks is something that is for a legal submission
20 rather than something he can comment on. But my proposition is again just that the
21 new covenant with CODC is not relevant to the matters that the panel needs to
22 consider when assessing consistency of this project with the criteria in the Fast-Track
23 Act.

24 **Mr Girvan:** I would, yeah, defer that, I think. Other than to say that it's the same
25 contextual aspect that I do take into account, that when looking at landscape effects
26 it's looking at the context within which that change occurs. And the proposed
27 covenant seeks to extend what is currently identified within the covenant.

28 ? So if that approach of looking at that new covenant is not the correct one, is not
29 legally correct, then we would need to discount that from your assessment of
30 consistency of the project with the covenant, wouldn't we?

31 **Mr Girvan:** Yes, I have relied on the existing [inaudible]

32 ? Thanks for your time.

33 ? I was down for questions but this slightly covered ground. I just wanted to, fairly,
34 couple of questions?

35 **Mr Muir:** Yes, Mr Enright.

36 **Mr Enright:** If I can just take you back to the first JWS, Mr Girvan, paragraph 35, which
37 is about the covenant. Do you have that?

1 **Mr Girvan:** I do, yes.

2 **Mr Enright:** So under the issue K, it refers to para 55. It outlines all the experts
3 understand the relevant landscape assessment considerations with respect to the
4 covenant are, and then lists those considerations, correct?

5 **Mr Girvan:** Correct.

6 **Mr Enright:** And obviously you signed up to that para 55, correct?

7 **Mr Girvan:** Yes, I did. And it was the understanding based on the Forest and Bird
8 submission. So we were given that through the joint witness statement, so we
9 understood that from the outset.

10 **Mr Enright:** Let's just take it step by step. So you've signed up to para 55 if the JWS
11 statement?

12 **Mr Girvan:** Yes.

13 **Mr Enright:** And nowhere in the list of relevant landscape assessment considerations
14 for the covenant have you referenced this new criteria that you've given in answer to
15 Ms Gepp around landscape context, have you?

16 **Mr Girvan:** In responding to that RFI to the panel is where I talked about landscape
17 context.

18 **Mr Enright:** Yep.

19 **Mr Girvan:** Not in this joint witness statement.

20 **Mr Enright:** Yep. But so you accept that that's a new point you've now raised that you
21 didn't reference in para 55 of the JWS. Do you accept that?

22 **Mr Girvan:** I accept that it's not referenced in the paragraph.

23 **Mr Enright:** Good. Thank you.

24 ? Inappropriate for me.

25 **Mr Muir:** Just wait, would you, until the cross-examination is concluded. Otherwise
26 it might upset Mr Enright.

27 **Mr Enright:** Thanks. Just if you, if we go to paragraph 56 of the JWS. It does seem a
28 reasonable point, doesn't it, that Ms Steven and Ms Gilbert make that, as they say,
29 the effect of uplifting or revoking the covenant, as proposed to the applicant, is
30 effectively making the values ownable, et cetera. I know you didn't sign up to that
31 but, in retrospect, would you agree that is a correct premise in para 56 of the JWS?

32 **Mr Girvan:** The reason I didn't sign up to that is understanding once the covenant's
33 uplifted, it's then working through what the consent requirements are. So the direct
34 disturbance footprint is where the disturbance of the mine occurs. So in terms of the
35 vulnerability of impact, it's within that footprint that the consent would require.

1 Beyond that, it's a mine regeneration zone and it actually requires conceivably more
2 protection in terms of the ecological uplift that that enables through the mine project.

3 **Mr Enright:** I see. So you'd agree to a qualified version of 56 perhaps, which would
4 refer to making the values vulnerable within footprint of the project. That would be
5 your qualifier, but you'd otherwise agree to 56?

6 **Mr Girvan:** We would agree with that, Mr Enright.

7 **Mr Enright:** Thank you, sir.

8 **Mr Muir:** Mr Parker, something that arose from that that you thought was usefully
9 subject to comment?

10 **Mr Parker:** Yes, it was just that I very clearly remember Mr Girvan in the conferencing
11 referring to his RFI responses, which is - - -

12 ? Sir, it's not normal practice for experts to reference matters discussed and not
13 recorded in the JWS.

14 **Mr Parker:** But I would say that the counsel there is referring to the JWS as if it was
15 minutes. [inaudible]

16 **Mr Muir:** We come into these sessions today on the basis that the JWS is the Bible
17 and if there is any issue about the accuracy of the JWS, even though it's been signed
18 off by the parties, that would have to be the subject of formal memorandum and
19 argument to the panel.

20 **Mr Parker:** Thank you, sir.

21 **Mr Girvan:** Sorry. I could just note that paragraph 59 of that JWS does refer to the
22 expansion of matters relevant to the covenant in my RFI response.

23 **Mr Muir:** Sorry, just one moment while I read it. It's recorded in 59 that there are
24 some, yes, cross-reference to the RFI response. Okay. I think it probably covers off
25 your point there, Mr Parker.

26 **Mr Parker:** Yes. Thank you very much.

27 **Mr Muir:** Mr Leckie?

28 **Mr Leckie:** Thank you, sir. Just a couple of questions. I won't be long. But it's on the
29 same paragraph. So if the document, the exchange of property rights document,
30 which the witnesses were sharing between them, I'll just refer to that as well. So it's
31 a good question for all the experts. But para 55, where you've recorded your
32 understanding of the relevant considerations. I just want to focus on 55C. It's
33 referred in answers today as referring to within the conservation covenant, page
34 1,Biii, maintaining the landscape values of the land referred to in the application for
35 exchange of property rights.

1 My question for the experts relates to the bullet points that follow 55C. Do you agree
2 that the landscape values that you refer to at 55C, they're the matters on page 11 of
3 the exchange of property rights document?

4 **Mr Muir:** Who is this question directed to, Mr Leckie?

5 **Mr Leckie:** This is for all, because they've all signed up to the same paragraph. So I
6 appreciate it's a long one, but I'll break it into two parts. The landscape values. Is it
7 the understanding of the experts that they're the matters listed under the heading
8 Visual and Scenic Values at page 11 of the exchange of property rights document.
9 Page 11. There's a heading Visual and Scenic Values. And is that what the experts
10 are referring to in their understanding of the relevant values?

11 **Ms Steven:** Yes, it refers to 11 and 12.

12 **Ms Gilbert:** There's a section around Thomson's Gorge.

13 **Ms Steven:** Which we should have recorded but we didn't.

14 **Mr Leckie:** I'll just ask a follow up question of Ms Steven, seeing Ms Steven answered
15 the first question. Page 16, the heading Thomson Gorge. You'd agree that's under a
16 different heading in that document, Detailed Proposal. It's not under the heading
17 Visual and Scenic Values. You agree with that?

18 **Ms Steven:** Yes, that's right. It's under Detailed Proposal.

19 **Mr Leckie:** Can I ask the same question of Ms Gilbert?

20 **Ms Gilbert:** Yes. Mr Leckie, I think the bullet-pointed matters under C, we managed
21 to reference one of them, which was maintenance of the special visual and scenic
22 values at page 11 and 12. But some of the other points, quite unhelpfully, we didn't
23 acknowledge the source. So the Thomson's Gorge, page 16, has got the reference to
24 maintain the area at its present state, which is the first bullet point. And the last
25 sentence of that same paragraph in the exchange of property rights document has got
26 the reference to mining, forestry and tracking being excluded from the area, which is
27 the second bullet point. And then Jill Hamill's work is probably back to the earlier
28 entry.

29 **Mr Leckie:** Just on the two previous ones, because it's helpful, the point I'm asking
30 about. So that's the maintaining area in its present state?

31 **Ms Gilbert:** Yes.

32 **Mr Leckie:** And excluded mining, forestry and tracking. Just for completeness, you'd
33 agree that is within the part of the document under the heading Detailed Proposal,
34 not under the heading Visual and Scenic Values?

35 **Ms Gilbert:** No. But I think the question in the JWS is what are the relevant landscape
36 assessment considerations. And so I think, from my perspective, those two bullet
37 points under Thomson's Gorge do sort of sit within that landscape consideration.

1 **Mr Leckie:** So your basis for that paragraph was not saying that those first two bullet
2 points were necessarily values. You're just saying that they're relevant matters for
3 your consideration from the document?

4 **Ms Gilbert:** That's correct, yes.

5 **Mr Leckie:** Thank you for that. I'm not sure if anyone else wants to answer the
6 question but that's the line of questioning.

7 **Mr Muir:** Mr Brown or Dr Ra, any contribution to that issue. It was directed to all
8 of the experts?

9 **Dr Ra:** No, no comment from myself.

10 **Mr Muir:** Thank you. Mr Brown?

11 **Mr Brown:** Yes, I agree with the Ms Gilbert has addressed this matter. I think we've
12 really focused on the issues that we've felt were most germane in terms of landscape
13 effects. So that was what we took into account in responding to it.

14 **Mr Muir:** Thank you, Mr Brown. Any further cross-examination, Mr Leckie?

15 **Mr Leckie:** No further questions, thank you.

16 **Mr Muir:** Any questions from the panel emerging out of the topics covered in cross-
17 examination? Fine. Thank you very much. We're going to take a quick comfort
18 stop for 10 minutes, so people can refresh. We've got three topics to go, although
19 there could be some slippage and I'm sure that if we go – we're not going to be thrown
20 out are we, Daya, at half past 5? We want to try and close as close to half past 5 as
21 we can. So we will have to keep some momentum in the way we deal with the last
22 three topics. Thank you.

23 **Hearing adjourned**

24 **Hearing resumed**

25 ? So the topic really is around where we've landed in terms of effects on the Bendigo
26 Tarras Basin. How that relates to what we've assessed in terms of visual effects from
27 viewpoints within that context.

28 **Mr Muir:** Everyone understand the issue? Right. Let's get going.

29 ? I think this one is a pretty straightforward issue really, in that within the joint witness
30 statement we – this is the second one, the revised one – we included three tables.
31 One of which was the visual effects table. And in terms of what that table shows, it's
32 my understanding of where each of the experts landed, based on the visual
33 simulations and those viewpoints from those locations, and what that means in terms
34 of the viewing audiences that that presents.

35 **Mr Muir:** This is table 2?

36 **Mr Girvan:** Table 2, yes. So it's on that basis that I've provided my understanding of
37 what the effects on the – that's helped inform my effects on the basin, what that

1 means. So in terms of, in looking at that table 2, you will see that I have assessed a
2 range of viewpoints and viewing audiences and you'll see the maximum that I get to
3 is moderate high. And that is where I've landed within the assessment of the effects
4 on the Bendigo Tarras Basin. So I've understood the consequence of what that means
5 and that space, in terms of that, based on that basis. And it's helped to inform me,
6 inform an accurate understanding of what that means for that context.

7 Why I'm raising this as a topic is that when we've looked at the other experts in terms
8 of where the effects upon the Tarras Basin are, it's recorded as a high effect. And I
9 understand that there's relational aspects of what that considers. But it's looking at
10 the consequence of views from that basin which, when we look at that table, there is
11 only a limited number of high viewpoints which have effects and what that then
12 means for where the extent of the effects from that view within that Tarras Basin.

13 So in my view, my findings of the basin have been, can be connected to that table.
14 So that's a helpful way for the panel to understand when the effects on the Tarras
15 Basin are considered to be what they are, where those effects are identified from.

16 **Ms Sweetman:** So you're taking a summary?

17 **Mr Girvan:** Yep. So in summary, I'm suggesting that – well, I consider that the effects
18 on the basin as a whole aren't to the extent which is defined in terms of that – well,
19 in my view, that they are, in terms of the ratings that I've given for what the Tarras
20 Basin are. It's a moderate high rating during open. So I'll bring that table up. And
21 I show that in terms of where those visual effects are within the visual effects table.

22 **Ms Sweetman:** So in short, you're saying to us what you've put in table 2 in terms of the
23 10 viewpoints, have informed your assessment in table 1?

24 **Mr Girvan:** Yes.

25 **Ms Sweetman:** In terms of line B.

26 **Mr Girvan:** Yes. So you can understand the extent of effects within that basin, so
27 where they're occurring from. And I'm raising that point because it's how we've
28 been – helped me understand [inaudible] described the effects on the basin, where
29 those effects are occurring and to what extent they occur. And so it can be relatively
30 quite topic but I think it's helpful to point that aspect in terms of kind of within this
31 rating of this helpful diagram in terms of scale, where the basin is a large part of that.
32 That's great. However, from a consequence of where, so helpful to understand where
33 in the basin those effects arise from.

34 **Ms Sweetman:** Did the experts prepare – oh, the experts note they have not had sufficient
35 time to review that too. So that's your assessment of the other experts' positions?

36 **Mr Girvan:** That's correct.

1 **Ms Sweetman:** So I guess our first question – well, I guess the other experts can now
2 comment, if they’ve had the opportunity therefore to review that table 2, if they agree
3 with Mr Girvan’s assessment, their assessments.

4 **Ms Gilbert:** To be honest, I haven’t since yesterday afternoon gone into detail into table
5 2, but I guess I would just like to express a bit of concern around translating table 2
6 to explaining table 1. Table 2 is about visual effects. That's about a technique we
7 use at assessing representative viewpoints to understand the change that you can see
8 in the landscape. And that impacts, helps to inform what we understand in terms of
9 physical changes, the physical effects, perceptual effects, which is the sensory aspect
10 of landscape, and the associative dimension, which is the meaning of landscape. So
11 Te Tangi a te Manu’s really clear that visual effects are a subset landscape effects
12 and a tool to understand landscape effects. So, coming at it from quite a different
13 perspective to Mr Girvan, my ratings for table 1 for the Bendigo Tarras Basin, which
14 is the landscape effects, take into account the full spectrum of landscape values,
15 physical, perceptual, associative. And where I personally think my ratings tend to
16 stray, to vary from Mr Girvan’s evaluation – I can't speak for him – but I think it’s in
17 terms of factoring in some perceptual matters such as landscape coherence,
18 naturalness values, dark night sky values, and rural tranquility and remoteness values,
19 effects on those dimensions of the landscape, as well as associative values, cultural
20 landscape, the sense of place and identity of that landscape for the local person.

21 **Mr Muir:** Some of the cultural values, however, will change as we move into, let’s
22 say, the Bendigo Tarras Basin, which is what this whole focus is on, won't they.
23 Because at that point we’re talking about at least a dispersed direction of travel which
24 has not been compromised.

25 **Ms Gilbert:** Well, I don't really want to speak to that, sir, because Dr Ra has commented
26 about that in the JWS yesterday, so I’ll leave that for her. Thank you. I think that's
27 it for me.

28 **Mr Barry:** For any of the experts but as you were talking, I will direct the question to
29 you, Ms Gilbert. I take your comments about the visual effects only being one of the
30 three dimensions of landscaping and understand that, of course. But given that
31 constraint, is it still not nevertheless quite a useful table to have for us to understand
32 the relative significance of the visual effects from different vantage points?

33 **Ms Gilbert:** Yes, I think it is. It’s definitely a useful tool to understand the effects of
34 the development change across the landscape. You can imagine that we don't
35 experience landscape as a series of static views and we experience landscape as a
36 sequence, as a far more complex matter. But yes, I definitely do. But I would just
37 caution you in thinking visual effects equals perceptual or landscape effects.

38 **Mr Barry:** I understand completely I think. There are three dimensions, or at least, as
39 a laymen, not expert. So I wonder though, it is concerning to me to have Mr Girvan’s
40 perception on your view rather than your own view.

1 **Mr Muir:** Could we just try and square that away then. Looking at table 2 and
2 understanding clearly the point you've just made, Ms Gilbert, that it sits at most
3 within a larger framework. But this is Mr Girvan's attempt to capture the position of
4 fellow experts considering this issue. If we just look at his column for you, is there
5 anything that strikes you as inaccurate in his categorisation of how you approach the
6 visual effects at these various vantage points?

7 **Ms Gilbert:** Yes, I think it looks reasonably spot on. The benefit I have is that my
8 comments did go through very carefully the representative viewpoints. I can't speak
9 for others.

10 **Mr Muir:** Yes, yes. Well, why don't we, just before we move on, if we could just
11 sort of clear that evidential issue away, to the extent we can. Ms Steven, you see the
12 column there. Is that a fair representation of your views, do you think?

13 **Ms Steven:** Well, it depends where Rhys got the information from, because my
14 meaning of visual effect is not the same as Rhys's. If Rhys is talking about visual
15 amenity effects, Rhys needs to verify where he got my ratings from.

16 **Mr Girvan:** This table was included within my evidence, and within that evidence
17 there's footnotes of each of these ratings. So through conferencing and response to
18 questionnaires, I did seek to clarify that those ratings were fair – were accurate
19 representation. So my appendix within my evidence includes the footnotes that refers
20 to each - - -

21 **Mr Muir:** To the text from which you drew this conclusion?

22 **Mr Girvan:** Yes. And that was to assist ensuring I was accurate. Why I've raised this
23 issue as at the moment in the joint witness statement it says that there hasn't been
24 sufficient time to review it. So in terms of your ability to make a comparative
25 judgment, it's an important difference.

26 **Mr Muir:** Well, it is. It's certainly useful that we explore it in the time that we've
27 got. Is there an issue here as to what – there seems to be a possible issue between
28 you and Ms Steven as to what is meant, what are the metes and bounds of the phrase
29 "visual effects".

30 **Mr Girvan:** Yep. And I'll make this quick. I do understand visual as part of landscape,
31 so it is undertaking the consequence of landscape change and views. So in doing
32 that, it is taking into account the dimensions of landscape that are available, what's
33 perceived, what it means, and understanding the actual physical change that's
34 apparent in those when you're looking at something. So you look at what's physically
35 modified when you look at something.

36 **Mr Muir:** You've used that as the basis of really how you are defining visual effects
37 for this purpose.

38 **Mr Girvan:** Absolutely.

1 **Mr Muir:** And I can direct to Ms Steven, having had that explained – and by all
2 means Ms Steven, just reflect on it while we go to one of the other experts. You just
3 do that, and I'll go to Mr Parker. Mr Parker, are you happy with what is set out as
4 accurately reflecting your position?

5 **Mr Parker:** Yes, sir, I am.

6 **Mr Muir:** Thank you very much. Mr Brown, have you got that in front of you?

7 **Mr Brown:** Yes, I have. And, I mean, it certainly reflects the ratings that I recorded
8 for the same viewpoints as Boffa Miskell had used in their initial assessment. So it's
9 accurate. But I'd just make the point that having the red stick out like that, which is
10 supposed to correlate with significant, sort of undervalues some of the other ratings.
11 So you don't get the continuum of effects shown in that table that you would
12 otherwise experience.

13 **Mr Muir:** I don't think you need to persuade the panel that, for example, moderate
14 high adverse is something that we would be obliged to take into account, in that it is
15 obviously not less than minor. So albeit not in red, it would certainly, I would think,
16 have resonance with the panel. Are you happy with that?

17 **Mr Brown:** Can I just comment on one other point. I think that the difference between
18 these two tables is essentially that table 1 is in reality the accumulation, or captures
19 the accumulation of effects. Whereas table 2 just focuses on individual viewpoints.
20 But table 1 is reflecting the fact that people wouldn't just see the proposed mine from
21 one location at one time. They would be repeatedly exposed to it from a range of
22 different locations. And that's why very early on today I mentioned the range of
23 different areas that would be exposed to the mine, as well as the range of roads, and
24 vantage points on those roads. So I think that that is something that needs to be taken
25 into account in thinking about the accumulative effects that the proposal would
26 generate.

27 **Mr Muir:** That position is recorded in the evidence, and with that qualification, you
28 will accept table 2 is accurate in the context of what it is designed to address, which
29 is a limited subset?

30 **Mr Brown:** Yes, absolutely, sir.

31 **Mr Muir:** Thank you. Ms Steven, have you had time to reflect on this or would you
32 like to deal with this through counsel by a quick memorandum?

33 **Ms Steven:** Nigel had something to say so I will quickly check one more thing.

34 **Mr Parker:** It was sort of to reiterate what Stephen's saying, in that, for me, table 1 is
35 the more important of the table. It's been said many times already but table 2 is a
36 subset. But for me, table 1 is the one I'd be focusing on.

37 **Ms Steven:** Right. So I think I've clarified that Rhys, just looking through and
38 comparing, it appears he's taken it from my visibility and visual effects analysis,

1 which is in my appendix. Now, that is nothing to do with evaluation. It's just simply
2 a description of the visual effect, the change in the view, which I then use to inform
3 my assessment of effects on visual amenity. And I think that's where there's a slight
4 difference between what I mean by visual effect and what Rhys means by visual
5 effect, possibly. So I'm just recording the visual effect that's recorded under the table
6 under my name is defined by the meaning that I give it at the beginning of my section
7 on visual effect.

8 **Mr Muir:** Good. Well, that's now recorded in the evidence. Thank you. So having
9 established that factual premise to move forward on - - -

10 **Ms Buxeda:** Excuse me. Excuse me, Mr Chair. My apologies. Can I just jump in and
11 hand over to our expert, Dr Ra, whose position is not recorded in that table?

12 **Mr Muir:** Well, yes. Now, I wondered what the position was, because Dr Ra's not
13 there.

14 **Dr Ra:** Yes, thank you. Thank you for bringing that to light, Ms Buxeda. Yes.
15 So you'll notice that there is not a column in the table pertaining to my perspectives
16 on the viewpoint assessment. I wanted to start, firstly by saying, and it hasn't come
17 up from any of the other experts but I don't think they'll disagree with me here, that
18 the conversation around table 2 and visual effects was a very time-constrained
19 discuss at the very end of yesterday. And that there was not a full opportunity for
20 this particular item to be addressed by the experts during the joint witness process.

21 So starting from that baseline. One of the things that I would like to note is that I do
22 not believe that table 2 is appropriately titled, and that visual effects are far more than
23 what is outlined in this table. This table is a list of viewpoints and the assessment
24 effects ratings against. That does not define visual effects in the fullest sense. Visual
25 effects come from, yes, the viewpoint assessments, which are static, but they come
26 from a broader visual appreciation of the landscape that people traverse within, and
27 that they extend beyond those viewpoints that are noted there. So that is a primary
28 consideration.

29 With regards to the lacking column for myself, that is because in my original
30 evidence we didn't outline a reassessment of visual effects, so Mr Girvan did not have
31 any content to draw upon to put into this. In saying that, as we were moving through
32 the development of the JWS – sorry, the reconvened JWS – that is in front of you,
33 we did have an opportunity to prepare some initial thought around – or I had an
34 opportunity to prepare some further thought around what would go into a table if we
35 were to add a column for myself. But it was determined at the late stage of yesterday
36 afternoon that there was not sufficient time for that to be integrated into this table,
37 and that other matters needed to be focused on.

38 And I'm not in disagreement with the approach that we took during the conferencing.
39 What I would note though is that visual effects and the viewpoints that have been
40 noted here have been considered by myself in my judgments of effects up in table 1.

1 However, my judgment of visual effects goes far beyond those viewpoints that are
2 listed on table 2 and they expand into areas where some views have been able to be
3 obtained from publicly accessible areas that represent mana whenua interests and
4 values. However, there are also views that we have not been able to obtain access
5 to, where we would like to understand the visual change relative to the shift in
6 legibility of the ara tawhito that moves through this landscape and the effects on that
7 visual legibility. And that has not been discussed in full as part of this JWS process.

8 **Mr Muir:** And what are you asking us to do?

9 **Dr Ra:** I'm not necessarily asking for anything to be done, except to make a very
10 clear differentiation between the use of the term "visual effects" and that table 2 is
11 not that. It is a list of viewpoint assessments. And visual effects are much broader
12 than that and include viewpoints that would need to be considered by mana whenua
13 and that have not been integrated in this assessment or JWS process.

14 **Mr Muir:** Right. That's now recorded in the evidence as your position. Thank you
15 very much, Dr Ra. So Mr Brown, we've covered you off. Is there anything further
16 that needs to be discussed between the experts on this subject? I feel that we've
17 probably resolved it. Is there any issue, any question from the panel in relation to
18 this? Yes, Mr Barry, Commissioner Barry.

19 **Mr Barry:** I just wonder if we might broaden out the discussion on weighting for a
20 moment to consider the difficult task that the panel as a whole will face, which is
21 what weighting to give to landscape relative to the other values. I'd just be very
22 interested to hear the experts here speak upon that, and perhaps in particular from an
23 evidential basis, do we have any evidence on the number of people that might be
24 affected, in terms of landscape values, if the mining went ahead. It's quite timely,
25 actually, to raise that now because this table – I think it's interesting and it's
26 analytical and it gives some insights. Not everything, of course, but as a starter. But
27 it doesn't actually try and capture the number of people who might be affected, as
28 well as the size of the effect on an individual person.

29 **Mr Girvan:** I can perhaps start with that. And in terms of understanding where the
30 visual effects occur. That is addressed within the assessment. And it's within five
31 kilometres, each dwelling that's been identified. We've looked at those dwellings
32 and we provide a judgment in terms of - - -

33 **Mr Muir:** Get the microphone closer.

34 **Mr Girvan:** Apologies. We have looked at each dwelling within five kilometres and
35 provided an assessment of the likely level of effect from those. Beyond that, we've
36 identified groups of dwellings, or clusters of dwellings, viewing areas, and equally
37 provided an assessment of effects from those groups – of those clusters of dwellings,
38 if you like, within that context. So when I've set my visual effects table out, it
39 includes – you can see there's two aspects to that. One is the roads and one is the

1 private viewpoints. So in terms of your numbers question, that's within my
2 assessment. I haven't added them up.

3 **Mr Barry:** Subjectively, you've tried to take a number of people and coming up with
4 these moderate, low, rank, you know. High.

5 **Mr Girvan:** Yes. And that's within the assessment.

6 ? So just adding to that from my perspective and kind of speaking to what Mr Brown
7 was talking about earlier today, the state highway network, State Highway 6, State
8 Highway 8 and State 8A. Of course, they're very popular scenic routes that both the
9 local community and visitors to the country would be using. And so when we're
10 thinking about the numbers thing, the number of people experiencing that view does
11 factor into an evaluation.

12 **Mr Barry:** Again, in terms of of the core evaluation, again, it's not through
13 modification but you've tried to take some consideration of the number what it be
14 affecting and coming up with your ratings in this table?

15 ? Yes. But I would agree with Mr Parker that if you're thinking about central, that sort
16 of influence on visitors, et cetera, I think you have to go to table 1 to get a picture of
17 it and look at the sub-clause B, Bendigo Tarras Basin. And that's because of this
18 whole idea that, yes, we use the viewpoints to get a bit of a gauge on things, but
19 there's more to it than just that one view. There's sequential exposure to views.

20 **Mr Barry:** And perceptual and associative value, is that correct?

21 ? Yeah, that's right.

22 ? Just as important as the number of people is the type of viewer as well. And one of
23 my concerns about the visual effects analysis was an absence of effects on
24 recreational users. I listed a number of conservation areas and access easements that
25 were not covered. Now, to me, that's a different kind of person than using the
26 highways perhaps. And then we've also got the Mata-au Clutha River corridor with
27 its proposed new cycle trail. And as we know, these cycle trails are incredibly
28 popular. And with the koreru opening and what. There's a whole network that's
29 going to happen which will attract even more people with the network.

30 So just as much as numbers are important, you also need to consider the type of
31 people that are likely to be experiencing the landscape and why they are experiencing
32 the landscape. That is definitely taken into account in my assessment, and it might
33 explain partly why I've put a very high rating against it. And then not only that,
34 there's also the people who are intimately using the site, going through Thomson's
35 Gorge Road, up to Mt Moka, using the conservation areas and visiting the heritage
36 sites, Bendigo Reserve. Another type of person again, intimately associated. Then
37 there are all the interest groups, the heritage buffs, the ecology buffs, that go there
38 for a particular reason.

1 **Mr Barry:** Do you have any evidence on the number of people who might be using
2 these facilities, like the number of heritage buffs per day visiting the site?

3 ? My only suggestion was, A, the Otago Goldfields Trust might have a handle on it.
4 The Department of Conservation may keep records. I know the recreational
5 assessment used Strava but it's pretty limited, that sort of heat mapping. So there are
6 probably ways of measuring it, I mean, DOC put counters on certain tracks to try and
7 work out numbers.

8 **Mr Muir:** Dr Ra or Mr Brown, do they wish to contribute to the discussion on that
9 issue that Commissioner Barry raised?

10 **Mr Brown:** Just very briefly. I thought it was very interesting that when a group of us
11 visited Welshtown in the Bendigo affair mining vehicles. We turned up there and
12 there were probably 20 or more tourists there and all looking sideways at these
13 vehicles with a bunch of people in yellow and orange flak jackets and stuff getting
14 out. They looked a bit askance at - - I think they were a little bit horrified at where
15 we appeared to be from. But more seriously, I think one of - -

16 **Mr Muir:** Where precisely was this?

17 **Mr Brown:** This was at Welshtown. One of the historic sites within the Bendigo
18 Historic Reserve. But more seriously, I think there's a real mixture of levels of
19 exposure too, to the site as well that have to be taken into account. And what I found
20 interesting is of course that there's been so much lifestyle development on the side of
21 the Pisa Range, which is oriented so that it's facing directly towards the mine site
22 and its surrounds. And it's not unusual in that regard because of a lot of the
23 development around Queensberry and so on tries to make the most of view
24 perspectives towards both the river nearby and then across the river to the Dunstan
25 Mountains. So some of those matters also need to be considered, and that's as far as
26 I will take it.

27 **Mr Muir:** Thank you, Mr Brown. Dr Ra?

28 **Dr Ra:** Thank you. Just a brief addition from me, which was to make a note
29 around the sensitivity of receptors. It was touched on slightly by Ms Stevens and
30 further by Mr Brown. But I think it's very important to note that proximity or
31 distance from the activities and the clustering of potential viewing audiences does
32 not afford the opportunity to understand the degree of sensitivity that sits amongst
33 those receptor groups. You can have somebody that is in a permanent dwelling who
34 is home all day – and I'm not saying we would ever get down to this level of
35 granularity – and has a view that looks directly towards the activity site. Or you
36 could have somebody that is only there as an Airbnb for six months of the year and
37 the views don't look in that direction anyway. So simply looking at it by sheer
38 proximity and classification of the type of receptor audience that may exist is not
39 enough. Sensitivity of receptor has to be considered to give depth to a viewpoint
40 based assessment.

1 **Mr Muir:** Just rounding out at the end of all of that, is there anything that wish to
2 add?

3 **Mr Girvan:** No. Well, just the only point is to assist the panel, the viewpoints that have
4 been taken are the worst case locations that have been identified within that context.
5 And it's on that basis that I've assessed the effects on each of those dwellings and
6 clusters of viewing – clusters of dwellings that are referred to. And I understand
7 there's no issue with that. If you were going to find the places within the basin that
8 you could see the mine the clearest, that's what they've endeavoured to do.

9 **Mr Muir:** Thank you. This doesn't strike me as a topic that's going to invite cross-
10 examination, but any counsel? No. Thank you.

11 **NUMBER FOUR – night time effects**

12 **Mr Girvan:** We'll lead that one off again. So yeah, it is topic J that we considered
13 within the joint witness statement – sorry, the conferencing questions, the questions
14 from the panel. And I accept that lighting is relevant to natural darkness, tranquility,
15 remoteness, and back country character. So I accept that they are relevant matters to
16 landscape. And I've relied on the specialist lighting evidence to understand that fixed
17 lighting can generally be managed, and that's through controls such as shielding
18 direction, limits on sort of [?] temperature and upward light. So I understand that. I
19 also understand that it's a more difficult issue to – mobile lighting and night time
20 vehicle movement to manage. It's harder to fully contain and may remain visible
21 from some distant locations. I understand that. That's the comment around what also
22 is understood.

23 That's particularly the case around the construction of the Rise and Shine pit and the
24 WELF. So there's parts of the project where that's more evident. And that is, if you
25 look at the visual simulations, they have been identified where those locations are.
26 So where the lighting effects of mobile lighting is visible, there's an understanding
27 of where those locations are within that context. So they're not visible in additional
28 places that the mine would otherwise be visible during the day. My point that. You
29 see the lights in the same places that you would see the mining activity. So in
30 landscape terms, I consider those operational effects, yeah, affect the same area. The
31 same footprint, shall we say.

32 And so my position is that it remains that lighting effects are capable of being
33 managed. In that case, I understand from the joint witness statement about a lighting
34 management plan. So I would support that and consider that the management of that
35 lighting, that aspect of lighting, the mobile lighting, should remain subject to an
36 adaptive management process to reduce where it can be reduced. So that's where I'm
37 leaving it.

38 **Mr Muir:** Ms Gilbert?

1 **Ms Gilbert:** Thanks, sir. I had the benefit of visiting the site – well, not the site, the
2 local area at night, and seeing a simulation of a dump truck light up on where Rise
3 and Shine pit will be. And that was very instructive. One light, moving, and we went
4 to all of the viewpoints, including across to Queensberry and State Highway 8, and
5 it was very evident.

6 **Mr Muir:** Do we need to understand the methodology of what was occurring that
7 night to give you this example. You obtained the consent of the landowner to what?
8 Take a vehicle up there?

9 **Ms Gilbert:** Yes, that's my understanding. I think they were on Thomson's Gorge
10 Road, which is a public road.

11 **Mr Muir:** Yes, I see.

12 **Ms Gilbert:** I can't speak to the method. I think Mr Simpson, who was Sustainable
13 Tarras, has provided that information.

14 **Mr Muir:** But you witnessed this exercise?

15 **Ms Gilbert:** Yes, I did, yes.

16 **Mr Muir:** From various vantage points?

17 **Ms Gilbert:** Yes, I went to all of the viewpoints.

18 **Mr Muir:** On a dark night?

19 **Ms Gilbert:** Sorry, I don't – I definitely went to several of them.

20 **Mr Muir:** So on a dark, presumably non-moonlit night, you went to the various
21 vantage points and simultaneously a vehicle was driven over Thomson's Gorge Road
22 - - -

23 **Ms Gilbert:** Yes.

24 **Mr Muir:** - - - and you observed the headlight effect of that?

25 **Ms Gilbert:** Yes. And my understanding was the lighting that was mounted on the
26 vehicle was similar to what you could expect for dumper truck lights moving on the
27 WELFs and the - - -

28 **Mr Muir:** So it was something beyond normal headlights. They had put something
29 - - -

30 **Ms Gilbert:** Oh yes.

31 **Mr Muir:** Some lights had been mounted on the top of the cab of the utility vehicle?

32 **Ms Gilbert:** Yes. And as I understand it, that's necessary. That's an operational
33 requirement to have that level of lighting, yep. So that informs my comments
34 regarding lighting being a particular issue in this setting. And that I would definitely
35 support doing some – it may not be the final lighting design, but some indicative –

1 working with a lighting engineer and developing an indicative lighting model that is
2 then tested. And it's possible to prepare for [?] testing that sort of lighting outcome.

3 **Mr Muir:** So is this lighting in a category that has an impact on dark sky
4 considerations or is this lighting in a slightly different category. It is to those,
5 particularly in the Pisa Range, who are looking out towards this area by night, sort of
6 irritant lighting, if I could call it that?

7 **Ms Gilbert:** I think it's probably both, sir. Referencing the lighting JWS, it appears
8 that the lighting experts acknowledge that the lighting will have a significant adverse
9 effect on the ONL and that there is at least some of the lighting experts that consider
10 the area is an appropriate candidate for a dark night sky classification, and that this
11 would have a bearing on that being able to be realised.

12 **Mr Muir:** Ms Steven?

13 **Ms Steven:** My view about dark sky is that it's a really important aspect of the back
14 country experiences. Now, this includes the like of the Pisa Range that you just
15 mentioned. But perhaps more importantly, using Thomson Gorge Road, the Argour
16 and Maniapuna and Indigo conservation areas, where your expectation is of pure
17 darkness, maybe the occasional vehicle light or a handheld torch, but nothing much
18 beyond that. So the difference between that and the lighting that would be generated,
19 even if it was as well controlled as it could possibly be, but bearing in mind there are
20 a minimum level of health and safety and operational aspects if it's going to operate
21 24 hours a day. The difference would be of some magnitude between pure dark that
22 you might expect in a remote back country area and the lighting that would be
23 expressed by this activity for a number of years. Not just temporarily but for a long
24 time.

25 **Mr Muir:** The effect is not less than minor. You say it's an effect, a significant
26 effect?

27 **Ms Steven:** Yes, and the reason I focused on it is because there are policies in District
28 Plan about protecting recreational opportunities and through the Otago Conservation
29 Management Strategy, which I think is still an important document, wishes to protect
30 back country amenity and not only protect it but enhance it where possible, and
31 expects many more people to be wanting to access it and you see it.

32 ? To stray into point 7 in our JWS, we did ask consideration of alternative to not operate
33 during the night to avoid night time effects. I think we also did an additional study
34 within the JWS, but awaiting results of that if that were to occur, I'm satisfied with
35 the landscape effects that are assessed, and those were recorded in table 1.

36 **Mr Muir:** Dr Ra?

37 **Dr Ra:** Thank you. A few remarks from myself. So I have been afforded the
38 opportunity throughout the 10 years of my career based in Australia to undertake
39 many night time assessments of mining activities. And the approach that is

1 undertaken in Australia is both comprehensive and methodologically robust, in that
2 it considers night time effects through the same methods that we use for day time
3 effects. The reasons behind this is because with regards to mining activities, night
4 time effects often exceed day time effects, particularly when looking at the types of
5 visual receptor audiences that we've been speaking about on table 2. In noting that,
6 I have a clarification for Mr Girvan that I'd like to seek.

7 Mr Girvan, you've stated that you've relied on the lighting expert's assessment. And
8 what I'd like to understand is whether that lighting assessment and the assessors have
9 the ability to determine effects on the three dimensions of landscape assessment and
10 landscape effects that we commonly look at. And just before you do answer that
11 question, I do have a point to make regarding celestial navigation. Many of you who
12 are aware of Māori navigation, both through the Pacific and into Aotearoa, will note
13 that celestial navigation was a major form of tracking and following our ancestral
14 travel routes, largely which were passed down through oral traditions. And because
15 of the nature of that ancestral knowledge that is passed down, understanding your
16 ability to navigate via the stars based on orientation and seasons is equally as
17 legitimate as understanding the legibility of the landscape during the day. If activities
18 start to obstruct your ability to read the night sky, that can inherently affect your
19 ability to navigate through the landscape. But yes, I'll pass that clarification back to
20 Mr Girvan.

21 **Mr Girvan:** Yes. So to answer that question, I don't consider they assess it in the same
22 way that landscape architects use a seven point scale in understanding kind of what
23 the significance of effects are. So I'm not aware that that is the case, that a lighting
24 assessment would do that in the same way. I've relied on the lighting assessment in
25 terms of the ability to manage lighting effects. So that's the extent to which I
26 understand.

27 **Mr Muir:** You've looked at it through a mitigation lens?

28 **Mr Girvan:** Yes, effectively. And it's the start dark principle, what can be done in
29 terms of the methods used for lighting in this context to be done, and then relied on
30 the lighting expert to ensure those methods will be established. Beyond that, I accept
31 that there are concerns with the mobile lighting and the vehicle lighting, so that's the
32 residual issues, if you like. There will be times that there will be lighting visible
33 within parts of the site, and I accept that. And that's where I also accept that, given
34 those concerns, that they should form part of the management process to limit what
35 effects occur through that mobile use of vehicles and plant.

36 **Dr Ra:** If I can just tighten my clarification, Mr Girvan. Are you saying that a
37 landscape and visual effects assessment of night time effects has not been
38 undertaken?

39 **Mr Girvan:** I haven't undertaken a separate night time lighting effects assessment, no.

40 **Dr Ra:** Thank you.

1 **Mr Muir:** Rob?

2 **Mr Enright:** Yes, sir. Last cab out of the rank again. I raised some concerns about - -

3 -

4 **Mr Muir:** Would you like me to redo the order. We'll make you first on next time.

5 **Mr Enright:** I don't think we need to, sir. I'm hoping this might be getting near the end

6 anyway. Look, the point I'd like to make is that I did have concerns about the original

7 assessment, and Cosgroves in their first report for the application said that there

8 should be an assessment of effects undertaken at night time. In their subsequent

9 report, which goes with the revised application, they resort to mentioning some

10 mitigation measures that could be adopted, including ensuring that lighting doesn't

11 stray above horizontal, LED lights are used as much as possible, and mobile lighting

12 is used so that it faces towards the working faces rather than back towards the

13 audience looking towards the mine.

14 Now, they don't really take it much further than that. If I give you an example. They

15 have a number of viewpoints which they employ and in relation to Pukekowhai Drive

16 at Queensberry, they then state a number of things that seem to me to be quite

17 obvious. But in terms of any assessment of effects, there doesn't appear to be one.

18 They simply state, for example, in relation to the Rise and Shine pit, that mobile

19 lighting shall be used, installation methodology shall direct mobile lighting to be

20 oriented and aimed towards the site, ie, away from viewpoint, as much as reasonably

21 practicable, particularly during early stages when mining activity's more visible.

22 Now, that is as far as the assessment goes for any of the mining operations at night

23 time. So my own view is that there has not been an assessment undertaken of night

24 time effects.

25 **Mr Muir:** Can I just indicate that Commissioner MacGibbon is required shortly to

26 sign off from his AVL link and Commissioner MacGibbon will follow the balance

27 of the proceedings today either by accessing the recording or the transcript. Thank

28 you. Panel questions arising out of those discussions. Are there any?

29 **Mr Kensington:** Yes. There has been an RFI on the mobile lighting issue and we will

30 receive that response in due course. And I imagine if we have any further landscape

31 assessment environment, we might direct - - -

32 **Mr Muir:** We can issue further RFIs to anyone that we think it's appropriate.

33 **Mr Kensington:** Other than that observation, I don't have any specific questions.

34 **Mr Muir:** Ms Sweetman?

35 **Ms Sweetman:** No, nothing further.

36 **Mr Muir:** Commissioner Barry?

37 **Mr Barry:** No, thank you.

1 **Mr Muir:** Anyway cross-examination? I did understand that this was a topic that was
2 inviting cross-examination, but I can grant leave accordingly.

3 ? Yes, I have some questions, thanks. Mr Girvan, Unsurprisingly, my questions are
4 mostly for you, and panel for you. You agreed with me earlier that lighting was
5 relevant to assessing effects on the outstanding natural landscape?

6 **Mr Girvan:** Correct, yes.

7 ? And you didn't assess night lighting in your original BML report, did you?

8 **Mr Girvan:** I didn't.

9 ? And you've confirmed now that you haven't undertaken a separate night time
10 assessment?

11 **Mr Girvan:** No, I have not.

12 ? And we heard this from Mr Brown just now, that what we have from Cosgroves is
13 really focusing on mitigation options. So I put it to you that we've missed a step, in
14 that we don't actually have an understanding of what the lighting effects are for you
15 to then draw a conclusion about how those impact on landscape effects. Would you
16 agree with that?

17 **Mr Girvan:** Partly. I understand in doing the landscape assessment where the fixed
18 plant is and the extent to which that is contained within the site, and that has been
19 referred to within my landscape assessment. I understand the aspects of lighting
20 which are – the concerns remain unseen to other – where the lighting remains visible
21 as a point source above that containment. So it's the mobile plant and the vehicles
22 that are operating that the lighting assessment refers to as – sorry, the lighting JWS
23 acknowledges that there's not an assessment of what that is at this stage. So I think
24 to answer your question, it's the mobile lighting which is the aspect that remains
25 unclear.

26 **Ms Steven:** Right. So just stick with me with the fixed lighting first of all. When I
27 look at the Cosgrove report and also the lighting joint witness statement at 16, which
28 says: "All experts acknowledge the potential for significant landscape adverse
29 effects and impact on distant observers from a mining operation". That is not, that's
30 not just talking about mobile plant, is it?

31 **Mr Girvan:** No. I wouldn't say it doesn't clarify what it is talking about so I can't say
32 it is just talking about mobile plant.

33 **Ms Steven:** So, given that's not limited to mobile plant, that potential for significant
34 adverse, significant landscape adverse effects from lighting needs to be factored into
35 your assessment of effects on the ONL, doesn't it?

36 **Mr Muir:** Perhaps in fairness to the witness, can that question be answered in
37 isolation from the mitigations. We can say the effects are significant if nothing is
38 done. The effects are less significant if this is done. What really the panel is

1 ultimately concerned about is with the contemplated mitigations reflected in
2 conditions, will the effects be more than minor. Isn't that what ultimately we would
3 need to consider?

4 **Ms Steven:** Yes, absolutely. So those effects subsequent to mitigation. But what we
5 don't have is an assessment of what those effects are with mitigation. So it seems
6 that where you have concluded for example, Mr Girvan, that it won't be visible from
7 additional places that wouldn't be visible during the day, which is what the evidence
8 you gave the panel just before.

9 **Mr Girvan:** Yes.

10 **Ms Steven:** Even just thinking about the fixed lighting, that's not something you can
11 really say without understanding what the effects of that lighting are.

12 **Mr Girvan:** I can understand where the light sources are visible from, and that's what
13 I've sought to assist the panel with, the extent to which those sources of light are
14 visible. I've understood through the lighting input that the effects from those fixed
15 sources can be managed, so that the implication, and they talk about the ASNZS
16 standard that that would be adhering to so that you're not introducing significant
17 effects through the fixed aspects of the project. What I understood from the lighting
18 experts is that the mobile aspects of lighting are the ones that remain less clear in
19 terms of what would be visible from beyond the site.

20 **Ms Steven:** Doesn't a lot of that mitigation and what residual effect results, doesn't that
21 depend a lot the extent to which the proposed mitigation measures are actually able
22 to be implemented. And just to give you an example, there's the discussion around
23 the desirability of using 3,000 k lighting, but there are exceptions for health and
24 safety situations for example. And at the moment we don't know how often those
25 health and safety exceptions are going to apply across the site. So we don't have a
26 clear idea, even with the fixed plant, about what those lighting effects are going to
27 be, do we?

28 **Mr Girvan:** Yes. I understand there will be exceptions to that. But what we do
29 understand is how visible those fixed plants are. That is my point.

30 **Ms Steven:** Do you understand how widespread the exceptions may be across the site?

31 **Mr Girvan:** No, I do not. But I guess my comment would be that the exceptions can
32 be defined and therefore, again, limited in duration. I don't understand the
33 consequence of that in terms of what that means for duration.

34 **Ms Steven:** What do you mean the exceptions can be defined?

35 **Mr Girvan:** Health and safety is a defined exception.

36 **Ms Steven:** Oh, the reasons for the exceptions, okay. But without having some form
37 of indicative model and then some provisions around when exceptions can be used,
38 we can't understand what the impacts of even fixed lighting are, can we?

1 **Mr Girvan:** We can understand where the fixed lighting is visible from. I still maintain
2 that, and we have done that exercise in terms of understanding where the plant may
3 be visible from and therefore the sources of light which may be located on that plant
4 may be visible from. So that's understood. The implications of that lighting can be
5 managed and we understand that that's what the lighting assessment sets out. And
6 there's an adherence to provisions which ensure that that lighting will be managed to
7 achieve effectiveness in terms of sky glow, darkness of the night sky concerns. So
8 what we haven't got is a model that shows what that means in this context.

9 **Ms Steven:** Yes, sorry, I just have to take you back to that. So we don't have anything
10 to show us what we will have in terms of night sky glow at the moment?

11 **Mr Girvan:** We don't have a model or simulations, if that's your question. So no, we
12 do not have that.

13 **Ms Steven:** And we don't have a condition saying you cannot exceed a particular glow
14 or anything like that, do we?

15 **Mr Muir:** The conditions are in the course of, or the proposed conditions are in the
16 course of being refreshed, if I can call it that, with a view to provision by I think the
17 22nd of June.

18 **Ms Steven:** Yes, sir. I don't know what opportunity I or my client will have to
19 comment further on those, but on that point it's more of a fundamental issue, not so
20 much about what exactly the conditions say, but about the basis on which Mr Girvan,
21 because this is the only opportunity I have to ask Mr Girvan questions, has reached
22 his assessment of effects on the outstanding natural landscape when we're missing
23 critical information. Thank you.

24 I'll move on, and I won't labour this point because I think you've accepted it already.
25 So your assessment of the effect on the ONL and on those in the vicinity of the
26 project, it needs to be caveated by waiting to see what the vehicle lighting assessment
27 says. Is that fair?

28 **Mr Girvan:** Correct.

29 ? would that also apply to your conclusion that you just gave that the mine wouldn't be
30 visible from additional places where it wouldn't be visible from during the day?

31 **Mr Girvan:** I think that's quite well understood in my assessment. The lighting is
32 located on aspects of mining activity within the direct disturbance footprint. I've
33 understood where that is and we've prepared modelling that shows where those
34 locations are. So that's conveyed within the visual simulation. So the extent to which
35 those mine areas are visible is defined. You can see where those disturbance areas
36 are within the visual simulation. So that's what I mean in terms of understanding
37 where the light sources are visible from.

38 ? Does that assessment account for the glow, the dome glow concept?

1 **Mr Girvan:** It accounts for where the point sources of light are, so that's just - - -

2 ? It only accounts for direct visibility of a point source of light, not the glow from the

3 light?

4 **Mr Girvan:** No, it does not, no.

5 ? Right. Okay, thank you. Thank you. So that would be a critical issue in

6 understanding the extent to which it's visible at night from other locations, wouldn't

7 it?

8 **Mr Girvan:** Yes, it would be. And it would remain something which needs to be

9 managed. That's the point and that's where the standards apply in terms of ensuring

10 that effects from the glow are not significant. So we manage the point sources, we

11 manage what we see, and the type of lighting and the controls around when it's used

12 is something which can be managed, in a sense. That's my point. So that they don't

13 – the effects of that lighting [inaudible] I think it's an important thing to ensure

14 support a management plan and conditions which achieve that. Which I understand

15 is where the statement of lighting has got to.

16 ? Before you get to the point of saying you support a management plan and conditions,

17 would you not want to consider your assessment of effects on the ONL and consider

18 whether you still thought those effects were acceptable, having that additional

19 lighting information?

20 **Mr Girvan:** What I've been able to do to this point is to understand where those fixed

21 plant aspects are, which is a part of what the lighting is. I think that's important. I

22 think it's important that we understand where those – is it contained or not, is the

23 heart of the question here. I would support modelling to understand that, but I

24 understand there's constraints around modelling. It's a dynamic thing that we're

25 seeking to understand. And that's where I've got to in terms of the residual or the

26 outstanding matter that I think still remains is the extent that mobile lighting won't

27 remain visible in that context of the ONL. And we're comfortable in terms of

28 understanding where the plant is and what that aspect of lighting is and how it can be

29 managed. That we're not going to introduce any – there will be effects of lighting,

30 and I understand that. It's whether those effects of lighting can be adequately

31 managed and the work that we've done and the understanding of where that fixed

32 lighting source is, I feel that there's adequate understanding of that in the context of

33 this landscape and the ONL.

34 ? But you told me earlier you haven't taken into account the glow and the visibility of

35 the glow, which must be relevant.

36 **Mr Girvan:** But I've relied on the lighting expert that that can be managed. So that's

37 the - - -

38 ? But managed to what degree. You don't know what degree it can be managed to, do

39 you?

1 **Mr Girvan:** No. And that's from the lighting experts.

2 ? But they don't say either that it can be managed.

3 **Mr Girvan:** I haven't heard. I understand that's an aspect that will be resolved through
4 the lighting expert conferencing piece. Yeah, I take your point.

5 ? Right. So last question on that. Is there the potential for mitigation, such as bunding,
6 to introduce new earthworks and features that could themselves have landscape
7 impacts that haven't yet been assessed?

8 **Mr Girvan:** If that was to occur, it would be within the direct disturbance footprint. So
9 there is, to the extent of landfall modification, that would likely be in association with
10 haul roads. So we have modelled the haul roads to understand where they're visible
11 from. But yeah, the extent of what that would require in CAR, that might change the
12 effects assessment. But I think that's well understood in terms of that direct
13 disturbance footprint. Yeah. I don't consider there would be any material changes
14 within that direct disturbance footprint.

15 ? Thank you.

16 **Mr Muir:** Mr Enright?

17 **Mr Enright:** I have no questions.

18 **Mr Muir:** Mr Randal? No. Any questions from the panel arising out of the cross-
19 examination?

20 **Mr Leckie:** Sorry, sir, I just have one question. I know it's late in the day.

21 **Mr Muir:** Please proceed.

22 **Mr Leckie:** I'll be quick. It's a question for Ms Steven, just on a point that came up
23 through the exchange. Just you mentioned, Ms Steven, the dark sky reserve. You'd
24 agree in the Central Otago district, dark sky reserves are mapped as Dark Sky
25 Precincts in the South Pacific?

26 **Ms Steven:** I haven't had any experience with Dark Sky Precincts but I do understand
27 that – I mean, I'm familiar with the Tekapo dark sky requirements there. So yes, it is
28 something that is done through a provision of the plan. However, I note that the
29 Cosgrove's report did state that they were going to endeavour to comply with dark
30 sky provisions as far as practical, which is a matter we did discuss in our
31 conferencing. And I have been pondering on this while people have been talking,
32 and the dark sky provisions is one thing. Tekapo has dark sky provisions but you
33 certainly don't get a dark sky environment from it because you can still see Tekapo.
34 So as far as impacting on remoteness and back country character, dark sky provisions
35 won't cut the mustard. No matter how well you design those provisions. It's just the
36 fact that there's lighting there that you can see will interfere with that particular
37 attribute. Does that answer your question? Because I did have one more point to
38 make about sky glow.

1 **Mr Muir:** No. We'll just conclude the cross-examination first and then if there's
2 something that has emerged from the cross-examination of any witness, then you can
3 ask my leave, or the panel's leave, to address us further.

4 **Mr Leckie:** Would you agree that the project site doesn't sit within a dark sky precinct
5 with the District Plan?

6 **Ms Steven:** As far as I know, it doesn't, no.

7 **Mr Leckie:** Thank you. That was my questions.

8 **Mr Muir:** So there's a further issue that you wanted to address which emerged from?

9 **Ms Steven:** The matter of sky glow. I just wanted to point out that from Onakai you
10 can see the sky glow of the high performance distance centre. You can't see the
11 centre itself or the point source effect. You can certainly see the sky glow. And then
12 it led me to thinking when it snows and you've got snow all over the ground, that
13 will reflect any light whatsoever and increase that glow, probably markedly.

14 **Mr Muir:** You've raised that issue. Mr Girvan, is there anything that you'd like to
15 comment on in that respect?

16 **Mr Girvan:** Not specifically the snow aspect.

17 **Mr Muir:** Are there any questions from the panel emerging after cross-examination?
18 No. Okay. That closes out that topic. We're on our final topic. We are going to
19 conclude by 6 o'clock. I'm sorry, EPA representatives here. I will determinedly keep
20 us to half an hour on consideration of alternatives. Mr Girvan?

21 **NUMBER SIX – consideration of alternatives**

22 **Mr Girvan:** Okay. So this is a question that we were discussing at the conference. So
23 again, I have prepared some brief paragraphs to just run us through this question. I'll
24 start within the broad terms, and I accept that there's alternative scenarios that could
25 theoretically reduce the artificiality of landforms. And some of those matters were
26 discussed in terms of undergrounding the mine, grade of backfilling, reducing
27 external waste landforms, or different material placement stages. I understand that
28 they're not simply requirements of the proposed landform design but a material
29 different project ahead of you. So I've understood that and just the question to this
30 alternatives in that way. Just seeking to understand alternative scenarios that – in
31 response to this project. So I think that's important to clarify because I accept that
32 there could be alternative scenarios which are a different project effectively, given
33 that there might be different mining methods, staging, material balance, operational
34 footprint, feasibility, potential yields, is where I understand that might go.

35 So I have considered this question in terms of within the project that's sought and
36 before the panel. And it is – in terms of the involvement that I've had with this
37 project, landscape considerations have played a part to help shape what the project

1 is. So that includes putting the elements within the Rise and Shine and Shepherd
2 Creek catchment to retain that broader skyline, including Battery Hill. So with that
3 configuration of alternatives, where do we locate aspects of the project to maintain
4 that backdrop. The progressive rehabilitation and integration within the surrounding
5 landform is part of that in terms of what those landforms need to achieve and how
6 they can be put back to fit within that context.

7 Beyond that, I accept that there's a limited ability to do much with the reds. It's an
8 open pit. It retains its open pit. It'll endure in that context and I consider it will have
9 high adverse effects as a consequence of what it is. So, yeah, there has been a process
10 of endeavouring to do what we can to reduce the effects of that and it really is what
11 it is in that context. It will have high effects. Notwithstanding that, we do introduce,
12 or the project does, introduce native vegetation around the margins, which does assist
13 integrating within the mine regeneration zone at closure. But it doesn't remove that
14 residual high effect. That's going to be a consequence of this project.

15 I consider there's more scope to refine the area around the streets so that the streets
16 fit, because the streets on [?]. The work that's been done in that area still leaves a
17 terraced ELF form, if you like. There's terracing within the ELF itself – sorry, the
18 streets itself. And some of the closure, or the closure requirements, set out within the
19 conditions here are about smoothing those terraces off, forming a rounded form.
20 There's a 1 in 3 gradient. So kind of ensuring that the rounded landform is more
21 sympathetic than something that can appear more engineered. So I accept that's part
22 of it. I would also support work to reduce the extent of [?] within that part of the
23 project. So I think that's where you start to get some of the alternative scenarios, how
24 you can integrate those final landforms to be less engineered at closure than they
25 might otherwise remain.

26 So in responding to this question, I think that's where there could definitely have
27 some benefit through. I guess beyond – I consider beyond that that the work that is
28 required in terms of those alternatives is about that looking at the works that's been
29 done at closure to reinstate those landforms to be less compliance to the remaining
30 aspects of windrows, the process plants. We're looking at what we can do to this
31 end, I should say, to reduce the linear forms of those, put the growing medium back
32 within that context and support rehabilitation of those areas. And that is a
33 requirement within the landscape ecology, the LERMP, and that helps that
34 alternative, that movement move forward. Which I think I support. I think that's a
35 requirement that the LERMP will seek to achieve.

36 The last thing I just would mention. In terms of the kind of the certainty of those
37 alternatives. One of the things that has been raised through conferencing is that the
38 ability to confirm that final form before it happens. And I support that as a clear step
39 in the rehabilitation process, that we have a final landform shape. And at the time
40 that that can be tested and adjusted before we are left with resurfacing and
41 revegetating. So these things happen over several years as they're formed. Before

1 it's completed, having an understanding of what the final landform outcome will be
2 in time to ensure that it can be successfully shaped prior to it getting covered with
3 groundwork and topsoil and revegetated. So I support that being a whole point, if
4 you like, that we manage the outcomes.

5 **Mr Muir:** Mr Brown, just to confirm your expectations, I'll call on you now?

6 **Mr Brown:** Sir, I think Mr Girvan's run through a lot of the options that are available.
7 It really comes down to, I think, two things. In order to reduce effects I think you
8 either have to look at a reduction in the operational time each day, which might help
9 us to address issues like the night time effects that we've just been dealing with. But
10 perhaps of more significance, we have to accept some realities. First of all, it's going
11 to be very difficult to rebuild, reshape, or resurrect the landforms on site. The steep
12 walls of the quarry, quarries, mines, will be extensive, they will be steep. And trying
13 to retain soil and other growing medium on them will be difficult. Heavy rainfall
14 periods will wash a lot of that material away. And therefore the options in terms of
15 trying to re-naturalise, or somehow emulate what was there before in terms of the
16 landforms, will be extremely difficult.

17 The best options that I can think of are to perhaps look at trying to do that within the
18 lower quarter or a third of the Rise and Shine and Come in Time pits, but I don't
19 think you'll achieve much more than that, and try and limit the extent of works
20 elsewhere. Now of course you still need the ELF and WELF to some extent, and
21 those can be reshaped more effectively. But I don't think at the end of the day that
22 that will compensate for the fact that the high walls are going to remain for a very
23 considerable time. Revegetation will also take a long time, especially within the
24 working areas of the mine.

25 So I don't have any easy solutions, I'm afraid, sir.

26 **Mr Muir:** You disappoint me, Mr Brown. Dr Ra?

27 **Dr Ra:** Thank you. I believe Mr Girvan and Mr Brown have addressed the limited
28 options that we have in front of us. To further elucidate on that. There really, other
29 than a fundamental methodological change in mining activity, we are very limited in
30 a highly constrained landscape within a valley system, to seek alternatives within the
31 current application. That's all I have to add.

32 **Mr Muir:** It seems, if I might take the liberty of observing that that is probably a
33 fairly sound position to have adopted. There are limited options. Ms Gilbert?

34 **Ms Gilbert:** Hopefully short and sweet, sir. I agree with what has been said before. I
35 guess it's a question to Mr Girvan. In the conferencing yesterday, you talked about
36 there's further opportunity to rehabilitate benches in the Schrecks ELF and partial
37 backfilling of the Schrecks open pit. Is there a reason what that's not being kind of
38 worked through at the moment?

1 **Mr Girvan:** I agree. There's options for that, and that could reduce effects. In terms of
2 the reasons that we're through, and that's what I've set out in the joint witness
3 statement as well, is that there's more than just landscape considerations.

4 **Ms Gilbert:** Absolutely.

5 **Mr Girvan:** Yeah. But I do agree that's one of the places that there's opportunity around
6 the Schrecks ELF and the Schrecks pit in terms of that partial backfilling to reduce
7 effects.

8 **Mr Muir:** Well, no doubt if the applicant considers that that is a realistic scenario,
9 then at some stage we will be advised of that. And it could only be from your
10 perspectives of other experts, an advantage, wouldn't it?

11 **Ms Gilbert:** Correct.

12 **Mr Girvan:** And I would note just in response to Mr Brown's comment, the Come in
13 Time pit is to be backfilled. So that is proposed. So in terms of the partial backfilling,
14 that is to put that back to resemble what was there previously.

15 **Mr Muir:** Yes. Ms Steven?

16 **Ms Steven:** I don't have anything further to add.

17 **Mr Muir:** Thank you very much. Mr Parker?

18 **Mr Parker:** I have nothing.

19 **Mr Muir:** No. Thank you. Any questions from the panel in relation to the issue of
20 consideration of alternatives?

21 **Ms Sweetman:** I was just going to ask you, Mr Girvan, from your understanding of the
22 conditions that we have in front of us to date, is that consideration of alternative
23 approaches at closure provided for?

24 **Mr Girvan:** It's monitored. I think what I would be supportive of is more certainty
25 around that final form at the time that we – prior to it being covered. That's my
26 comment. And that currently isn't an explicit whole point in the conditions from what
27 I can see.

28 **Mr Muir:** Any further questions from the panel? No. Any cross-examination on this
29 topic?

30 **Mr Enright:** Yes sir. For Mr Girvan, of course.

31 **Mr Muir:** Thank you, Mr Enright.

32 **Mr Enright:** The first question is, do you accept that the Te Tangi a te Manu expects
33 that the landscape expert will be involved in the first principles exercise around site
34 selection and design?

35 **Mr Girvan:** We consider that's beneficial to any project, yes.

1 **Mr Enright:** And I can take you to the paragraph 7.19, if you'd like to have a look at it.
2 And Ms Gilbert's got - - so it's Te Tangi a te Manu at page 177, chapter 7, paragraph
3 7.19, at page 167.

4 **Ms Gilbert:** 167, yes.

5 **Mr Girvan:** Yes.

6 **Mr Enright:** Just, obviously I'll let you have a chance to read it. But as you see, it says
7 there that it's in the context of talking about avoid, remedy, mitigate. First preference
8 is to avoid. And then: "This requires the landscape architect to be an active
9 participant in the project design from its inception, not brought in after the design has
10 been determined, to mitigate effects". That's what you see, that's right?

11 **Mr Girvan:** Mmm.

12 **Mr Enright:** And so the flavour of what you've said in the joint witness statement under
13 issue O, which is this alternatives topic, is essentially you were not involved in the
14 first principles design of the mine. You've essentially had to accept certain client
15 briefs around the need for pits, and then you've attempted to mitigate those effects.
16 Rather than you making recommendation, for example, to adopt an alternative
17 approach such as underground mining from the outset. That's correct, isn't it?

18 **Mr Girvan:** Yes, I would say it's partly. We have been involved in the process in terms
19 of understanding the effects. The first step was understand the values. The second
20 step was to understand the effects. It was through that initial understanding that the
21 mine's been reconfigured to manage those effects. So the resource is where the
22 resource is, and I've understood that. The project has then been shaped. And as a
23 consequence of seeking that, the effects are what the effects are. So it is a principle
24 that's been applied in terms of where it's landed. The reality is that putting a
25 goldmine in this location will result in significant effects.

26 **Mr Enright:** Okay. I'm not sure you've answered my question. If I can please ask you
27 to look at the JWS 2, under issue O. It's at paragraphs 48 and 49.

28 **Mr Muir:** Sorry, the reference again?

29 **Mr Enright:** So JWS 2, issue O, paragraphs 48, 49. Right. So you have those?

30 **Mr Muir:** Do you have that in front of you, Mr Girvan? No.

31 **Mr Girvan:** Sorry. What was the paragraph reference again, sorry?

32 **Mr Enright:** Paragraphs 48 and 49.

33 **Mr Girvan:** Yes.

34 **Mr Enright:** So you now have it in front of you?

35 **Mr Girvan:** I do.

1 **Mr Enright:** So it's pretty clear, particularly from paragraph 49, that you've had to
2 accept certain client parameters. For example, you say within the currently proposed
3 mining method?

4 **Mr Girvan:** Yes.

5 **Mr Enright:** The resource, the layout, has been informed by landscape considerations.
6 So I just need you to confirm that essentially you were presented by the client with a
7 brief which involved at least two open pit mines, and then you've put forward a
8 number of recommendations to mitigate those effects as you've outlined. But that
9 was the brief, wasn't it?

10 **Mr Girvan:** It did move, I guess, as the project wasn't just these are the mines. It was
11 a process of assessing a proposal, giving feedback on that proposal, and then that was
12 the proposal that was assessed. So, in terms of that iteration, if you like, it was not
13 just being brought in at the time that the mines were designed. There was a process
14 of seeking to reduce this, and it did largely relate to the Rise and Shine. So in terms
15 of that first step, the location, that has been worked through. We then looked at what
16 we could about the proposal that had developed, having that initial iteration, and then
17 it was seeking what we could do to address the effects at that stage.

18 So, I guess just to highlight, there was a step of confirming the effects, shifting the
19 proposal in response to that, and then addressing the effects given that.

20 **Mr Enright:** I'm sorry, there's actually three pits. Come in Time [inaudible]

21 **Mr Girvan:** So the Come in Time pit is being backfilled for that reason. So that was -
22 - -

23 **Mr Enright:** But essentially, we just need a clear answer if possible please. These were
24 non-negotiable parameters put to you by the client and you, quite properly,
25 recommended mitigations. But this is not a situation where you came in at the first
26 principles level and recommended that if underground mining was undertaken
27 instead, the landscape effects would be substantially lessened. That's correct, isn't
28 it?

29 **Mr Girvan:** Well, it is a case of understanding what the effects of what's in front of me.
30 I've been clear about that. I accept that if it was an underground mine, the effects
31 would be avoided. But that's not what's in front of me.

32 **Mr Enright:** No, that's the point. What was in front of you is what your client gave you
33 as non-negotiables. That must be right?

34 **Mr Girvan:** Well, it's what's been assessed, yeah.

35 **Mr Enright:** So just to be clear, in para 53 of the same joint witness statement, you've
36 accepted that there are at least two alternatives in 53A and B. One was limiting
37 mining to underground mining only. And I think in the answer you just gave me

1 before, you accept that if it was an underground mining scenario, that would avoid a
2 number of the effects on the ONL values. That's correct, isn't it?

3 **Mr Girvan:** It is correct, yes.

4 **Mr Enright:** Right. Thank you, sir.

5 **Mr Muir:** Can I just clarify one thing, Mr Enright. This line of cross-examination,
6 you're not elevating it, are you, to the point of saying that, going back to Te Tangi a
7 te Manu, para 7.19, that the witness has not observed a requirement, are you. You're
8 not putting it that highly, because that would be difficult because the requirement is
9 focused on the RMA and we've got to consider this application in the context of
10 Schedule 5 and what it says about the RMA?

11 **Mr Enright:** Yes, sir. So it's not being elevated to the point of a legal principle, for
12 example. But all the landscape experts agree that Te Tangi a te Manu was a statement
13 of best practice guidelines. So up to that level I've pitched it. And obviously the
14 experts have all – I mean, that is essentially the point.

15 **Mr Muir:** Okay. Forward a step, thank you. Any further cross-examination?

16 ? I have one question.

17 **Mr Muir:** Yes, thank you.

18 ? It's on a similar topic to Mr Enright's questions but mine relates to tailings
19 management. And my question is, to the extent that different options for tailings
20 management were considered by MGL – and that's something that the geotechs are
21 discussing – to the extent that was considered, were involved in any advice about
22 the landscape impacts of different tailings management methods?

23 **Mr Girvan:** I was involved in the, again, the rehabilitation aspects of that. So that once
24 the tailings were defined, it was then how the tailings work in that context. And that
25 was then working through the process of capping, producing the linear elements for
26 the dam that forms the tailings, and reinstating wetlands and the type of vegetation
27 that capping. So I was involved in that level how does the structure become
28 prominent in that context. In terms of locating where the tailings were, I wasn't
29 involved in that process.

30 ? So you were presented, to use Mr Enright's terms, you were presented with a tailings
31 storage facility as the option for tailings management, and then you mitigated the
32 landscape effects of that where you advised on mitigation of the landscape effects of
33 that particular tailings option?

34 **Mr Girvan:** Correct.

35 ? Okay. Thank you. Thank you, sir. Those are my questions.

36 **Mr Muir:** Mr Leckie?

37 **Mr Leckie:** No questions, sir. Thank you.

1 **Mr Muir:** Any questions from the panel emerging from cross-examination? No.
2 Very good. That concludes the concurrent hearing in relation to landscape. Could I
3 thank counsel for the restrained way in which they have approached cross-
4 examination through the day, which has assisted us in concluding within a reasonable
5 time of that indicated, only the half an hour late. Could I express my particular thanks
6 to the experts, both those present and online, for the considered and professional and
7 courteous way in which they have addressed the issues as the day has unfolded. The
8 panel has had an opportunity to confer at various times during the course of the day
9 and we regard this process as having undoubtedly fulfilled its primary function,
10 which is to better inform us of why the respective experts have differences of opinion
11 in the areas that were identified.

12 I've also had an opportunity during the course of the day to discuss with some counsel
13 but not all, whether they consider the approach that we adopted to the concurrent
14 hearing today is one which, despite all that I had previously said in writing, is
15 preferable to that originally indicated. And the counsel whom I have spoken to have
16 said that they consider it to be a very good format and that we should at least run the
17 format tomorrow for the heritage concurrent conference. And then we can consider
18 again whether we are going to institutionalise the new format for the balance of the
19 nine day period, but that it's sufficiently positive at this point that we should do
20 likewise tomorrow.

21 Now, for those counsel whom I haven't spoken to, is there any alternative view to
22 that or have you also found it a useful way to approach. Mr Leckie?

23 **Mr Leckie:** Very useful from our perspective, thank you, sir.

24 **Mr Muir:** Right. Any other counsel have a view about that? I don't think I've even
25 spoken to Mr Enright really - - -

26 **Mr Enright:** Very rewarding, sir, and EDS is particularly grateful to the panel for
27 allowing the myriad of questions by counsel. So I just wanted to say that.

28 **Mr Muir:** Right. With that in mind, could I ask counsel then please to notify, rather
29 than springing it on everyone as I did this morning at about 9 o'clock, could I ask you
30 to notify the experts that are being called tomorrow for heritage that this be the way
31 in which we will approach the concurrent hearing tomorrow and that we will start, as
32 we did today, with a whiteboard and identifying, in broad terms, the topics that we've
33 got to address during the day, and to give some thought overnight. They can confer
34 if they want to, at 8 to 9 o'clock tomorrow morning, if they think that's useful, but not
35 required. I'm quite certain that we can manage that process to the same point
36 relatively quickly tomorrow if people have had an opportunity to think about it
37 overnight. What's that?

38 ? Five key topics.

1 **Mr Muir:** That's right. The key topics. The five key topics have morphed into seven.
2 It's fine, we can cope with seven. Thank you all very much. I think it has been a
3 long, difficult, but very useful day. Thank you.

4

5 **Landscape hearing concluded**