

MINUTE 16 OF THE EXPERT PANEL

Record of Hui at Aaruka Marae

Central and Southern Block Mining Project [FTAA-2512-1153]

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[Start of Recorded Material: 0:25].

NGAHUIA HERANGI: Kia ora taatou. My name's Ngahuia Herangi. We're multiple pootae. I am a trustee on Te Kooraha Marae and I have been the Chair for Tahaaroa Lakes Trust for a couple of years.

Three months ago, we appointed a co-chair, so Tash over here is the co-chair, and alongside me we've got Jodi Whitiora-Te Uira, and then Fleur Passau, and hobbling along over here is Jess Haunga. She's a Kiwira [? 1:13]. Tash will listen [? 1:16]. On the 31st of May, I was elected onto Taharoa C Block Incorporation, and then on Friday just been, I resigned as the co-chair of the Lakes Trust and indicated to my fellow trustees that come the next AGM, I'll be withdrawing from the trustees.

That's just one or two, but today I'm here with my Tahaaroa Lakes Trust pootae on, but I do want to go back to the Te Kooraha Marae presentation and just say also that for the first time ever we had a dust storm at Te Kooraha Marae this year. That's never happened before, and that's happened because something in our environment has changed. Not quite sure what it is that has changed in our environment, but I would hazard a guess that the ridge above Mitiwai that used to protect us in the north is being eroded and taken away, and that protection is no longer there anymore.

Anyway, back with my Tahaaroa Lakes Trust pootae on, for the purposes of Māori Land Court, Taharoa A7A2A. We have a shareholding base of 1700 owners in Tahaaroa Lakes.

We have six shallow dune lakes with Lake Tahaaroa being the largest of the six, and two interconnected lakes, Numiti in the middle and then Rotoroa south of that. Further south we have Piopio and then Lake Korototapu, and south of that is Lake Harihari.

This image is a picture of our lakes catchment, so you can see the streams and the tributaries that flow into the lake system and also the Māori land box [? 3:53] that sit on the south-east side of the lakes. Where the red pin is is where you are. Where the yellow pin is, is where is Te Kooraha Marae is, and where the round white dot is where we go and do our cultural monitoring. We try and get out there at least once every season.

The red dot is where the mine site offices are and the white line represents the route that we take to get to the lakes. We travel past through the mine, past the main buildings, over the sand dunes and

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through the pine forest, and travel alongside Lake Numiti to get to a place where the white dot is called Maukore.

We've developed a cultural monitoring programme, a plan, a catchment monitoring plan and a seasonal monitoring programme that enables us to regularly check in on the health of our lakes, much like we would check on our tamariki. We observe, listen and gather information over time, measuring changes, identifying trends and intervening early when something doesn't seem right. This is a long term project. It is an expression of kaitiakitanga, the kind of long-term care and responsibility you give something you love and want to see thrive for future generations.

Our goal is to understand the health of our lakes today so that we can make informed choices that protect them tomorrow. To date, much of our monitoring effort has focused on Lakes Tahaaroa, Numiti and Rotoroa. Our other lakes within the wider system also deserve attention; however, our ability to monitor them has been constrained by limited capacity, capability and resources, not by lack of interest or commitment.

Alongside this work, we have invested in digital tools to strengthen our ability to manage and understand environmental information through our partnership with the stream. We have developed a digital platform that brings together monitoring data from across the lake system, including data both historically and current collected through Waikato Regional Council's monitoring programme in Lakes Numiti and Rotoroa. We have also developed rongo, which is a field-based monitoring application that enables whanau to record observations, cultural indicators, upload photographs and environmental data while on the whenua. Information can be collected offline and uploaded once connectivity is restored, allowing monitoring to occur wherever our people are working and observing.

Looking ahead, our vision is to evolve this platform into a real time environmental management tool for the Lakes Trust. We see opportunities to track consent conditions, water takes, discharges, fish passage recruitments, requirements, monitoring results, management plans, reporting obligations and consultation commitments in one place. Ultimately, it would provide a transparent, accessible and integrated system that supports informed decision-making, strengthens accountability and empowers our people to actively participate in the stewardship of our lakes. Kia ora.

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This is an overview of what we're going to talk about. We're just going to touch on five of the six lakes and then wrap up with our position. First I'm going to talk about our vision, which is on the next slide. Our vision reflects the principles of Te Mana o te Wai, placing the health and mauri of our wai first, followed by the wellbeing of our people, and ensuring benefits for generations to come. The wellbeing of our lakes reflects the wellbeing of our people and our ability to practise who we are as a hapu.

Wainui Stream is the sole outlet for Lake Tahaaroa and plays a critical role in maintaining the ecological connectivity between the lake and the sea. It is particularly important for fish passage enabling tuna and other indigenous species to complete key stages of their life cycles. The dams and associated infrastructure have disrupted this connection. While there are claims that fish passage is functioning effectively, the lived experience of whanau tells a different story. We have observed tuna becoming trapped, struggling to migrate upstream and being unable to access habitats that have sustained them for generations. Adequate freshwater flows are particularly important during periods of tuna migration. Tuna rely on flow cues to locate the entrance to freshwater systems. When insufficient water is released, those cues can be weakened or lost, causing migrating tuna to bypass the stream outlet altogether.

The consequences extend beyond individual fish and affect the wider health resilience and mauri of the lake system. Our concerns are not theoretical. In May 2025, we were informed through a reliable source that tuna had become entrained within the intake system, requiring operations to be suspended while divers cleared the turbines. We understand the incident was reported to Waikato Regional Council on the 12th of May 2025. Following a site visit on the 15th of May, Council advised that there was no evidence of tuna entrainment at the intake and/or tuna mortality downstream of the weir. We believe some of these fish may have been tuna heke undertaking their migration to sea.

What is particularly concerning is that there remains very little information about tuna heke. TIL's own freshwater ecology assessment acknowledges significant knowledge gaps regarding tuna migration. Yet understanding these movements is fundamental to protecting a taonga species that has sustained our people for generations. We are also concerned by the ongoing risk of injury to tuna. TIL has been aware for some time that tuna may sustain injuries when traversing the overflow structure. In our view, acknowledging a

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problem is not enough. Where risks to taonga species are known, there should be a clear expectation that all reasonable measures are taken to eliminate or minimise those risks.

The health of Wainui Stream is also threatened by invasive aquatic weeds. Two species are of particular concern, Lagarosiphon Major and Hornwort. Hornwort was first identified in Lake Tahaaroa during a lake spy survey undertaken in November 2024. Prior to that, a mechanical weed harvester was brought to Tahaaroa to remove Lagarosiphon Major from Wainui Stream. Photographic evidence of that harvester in Wainui Stream was published in a Bay of Plenty Regional Council report relating to weed harvesting in the Te Arawa Lakes in 2020. While the pathway cannot be confirmed, it raises legitimate questions about whether biosecurity risks associated with equipment movements were adequately managed.

There is also a broader concern regarding the increasing demand being placed on freshwater resources. Wainui Stream and Lake Tahaaroa underpin the mining operations water supply. With suggestions that shipping movements could increase from approximately 20 vessels per year to as many as 35, we are concerned about what this may mean for future water demand and accumulative pressure placed on the lake system.

Whaanau have witnessed these changes over time. Areas once used for swimming, gathering kai and connecting with the lake are no longer used in the same way because of declining environmental conditions. These observations may not always appear in technical reports, but they are an important measure of environmental change and cultural wellbeing. For these reasons, freshwater effects cannot be considered in isolation. They must be assessed through a precautionary cumulative ki uta, ki tai approach that recognises the interconnected nature of the catchment, lakes, streams, wetlands and coastal environment.

Ultimately, our concern is that freshwater has too often been treated as an operational input to support mining activity. For us, water is not simply a resource to be managed. It is a taonga, it has mauri, it sustains ecosystems, cultural practises and the wellbeing of future generations. Any decision affecting these waters must reflect that reality.

We continue to monitor tuna, kaiaua (which are freshwater mussels) populations as part of our commitment to understanding the health of

our taonga and wider lake system. This work is more than collecting data. It is about building the knowledge required to make informed decisions, identify emerging risks and ensure that future generations can continue to exercise customary harvest and maintain the connection to these lakes.

Our research indicates that Lake Tahaaroa currently supports a relatively abundant tuna population; however, the data also highlights several warning signs. Tuna generally are smaller and slower growing than expected. The population structure is dominated by older fish. Parasite prevalence is exceptionally high and the lake continues to show signs of declining water quality. We know this because a comprehensive tuna survey was undertaken in 2007 by Ian Ruru and Ben Chisnall. We repeated that survey in Lake Tahaaroa in February 2025. While the fishery remains viable, it is also vulnerable. Long-term sustainability will require coordinated action, including habitat restoration, improved fish passage, ongoing monitoring, further investigation of parasite loads and governance arrangements that enable hapu to actively participate in the management and protection of this taonga resource.

Climate change is an additional concern. During our comprehensive tuna survey in February 2025, surface water temperatures reached approximately 35 degrees Celsius. These shallow dune lakes are particularly susceptible to warming and we remain concerned about the implications for tuna health and habitat quality. We do not yet fully understand how tuna respond to these conditions. One theory is that they retreat into tributaries or cooler habitats during the day to avoid thermal stress. This highlights how much we still have to learn about the resilience and vulnerability of these populations.

We are also concerned about the cumulative effects of water abstraction from Wainui Stream and any activities that may alter the lake level regime within the lake system. Changes in water levels have the potential to affect not only fish habitat, but also marginal lake vegetation, wetland ecosystems and the broader ecological processes that support the health of the lakes.

Lakeside macrophyte monitoring forms an important part of our monitoring programme. During our first lake monitoring wananga in November 2023, we observed a diverse assemblage of native aquatic plants growing within the shallow littoral zone; however, the lake environment proved highly dynamic. By the time of subsequent monitoring events, those same areas had changed significantly. The

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original monitoring site had effectively disappeared becoming dominated by raupoo, and to a lesser extent invasive lagarosiphon.

These observations raise important questions about what is driving change within the lake margins. One possible explanation is the influence of lower lake levels during summer periods. Although further investigation is required to better understand the relationship between the lake levels, vegetation change and habitat condition, raupoo itself presents an interesting challenge. It is an important native species that provides valuable habitat for kaiaua and can help suppress invasive weeds such as lagarosiphon; however, when it becomes excessively abundant, it can also alter the character of the lake edge and restrict physical access to areas traditionally used for swimming, gathering kai and connecting with the lake.

This highlights the complexity of lake management where even positive ecological changes can have unintended consequences for cultural use and access. Taken together, these observations reinforce the importance of long-term monitoring and adaptive management. The lakes are living systems and continue to change over time. Understanding those changes and responding before ecological thresholds are crossed is essential if we are to protect the mauri of the lakes and the taonga species they support.

Lakes Numiti and Rotoroa, this area is a significant wahi pakanga. Taituwha already talked about the battle of Te Kakara, and that happened here. Although on the maps it has a polygon and says that's where it happened, it happened everywhere. They didn't stay within the lines of the polygon. I don't have to repeat the battle cos it's already been talked about, but if TIL's FTA is approved, approximately 60 hectares of pine forests will be harvested and then mined (those are the pine forests that you can see there), resulting in a significant change to the landscape. Once the forest cover is removed, areas that have remained largely undisturbed for decades will be exposed.

Given the historical significance of this landscape, including its association with the battle of Te Kakara and surrounding wahi tapu, there is a possibility that kooiwi or other cultural heritage features could be encountered during harvesting or subsequent mining activities. The harvesting of pine forest and associated earthworks will occur in close proximity to the lakes. Given the declining condition of these lakes and ongoing water quality challenges, further disturbance of the surrounding catchment risks compounding existing environmental pressures and undermining restoration efforts.

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The pine forest is also a known habitat for long tailed bats, a species classified as nationally critical, the highest threat status in Aotearoa. These bats rely on forested environments for shelter, breeding and foraging. The proposed clearing of forests would result in a substantial loss of habitat, and presents a significant risk to the long-term survival of this threatened species in the area.

The issue is not what TIL says, it is what the community sees. Decades of resource extraction with limited visibility benefits returned to the environment or community. Rehabilitation and remediation are frequently promoted but outcomes are often difficult for whanau to verify. A gap remains between commitments on paper and experiences on the ground. Trust requires transparency, accountability and demonstrated long-term results. Kia ora.

Lake Rototapu is a special place. Its name literally means the sacred lake. Given its proximity to Te Kakara, a site of historical conflict and loss of life, the lake carries deep cultural, spiritual and historical significance. Our histories recall that tupuna who fell in battle were taken to a nearby waterfall to be washed before their final resting places were determined, further reinforcing the tapu and enduring importance of this landscape.

Tauwhare, which Taituwha touched on earlier, is a wahi tapu and urupa where kooiwi of our tupuna are interred. It is a place of deep cultural, spiritual and historical significance, embodying our whakapapa and connection to the whenua. As a sacred resting place, it requires the highest level of protection and respect as its values cannot be replaced, recreated or offset once lost.

We acknowledge the existence of an accidental discovery protocol; however, our concern is that protocols do not protect kooiwi. People do. With the loss of many long-serving staff who possess local knowledge and historical context, we have limited confidence that potential discoveries will always be recognised and reported appropriately. In a culturally significant landscape such as this, avoidance is a far more reliable safeguard than reliance on a protocol after disturbance has already occurred.

Just changing tack a little, approximately 4.25 hectares of moderate value natural wetlands will be permanently lost in the mining if the mining proceeds. That's expected to happen south, close to the vicinity of Lake Piopio and Rototapu. TIL acknowledges that these losses cannot be avoided, minimised or remedied, and instead

proposes biodiversity offsets. The concern is that these wetlands are part of a wider interconnected landscape surrounding Lakes Piopio and Rototapu. Their loss represents more than a reduction in wetland area. It is a loss of ecological functions that help support the health, resilience and biodiversity of the lake system as a whole.

Given the significance of these wetlands and their connection to the wider lake system, we seek a precautionary and avoidance based approach that prioritises protection over compensation. At a minimum, this should include a 100m setback from all natural wetland areas to reduce the risk of direct and indirect effects on wetland function, hydrology and biodiversity. We also seek the inclusion of enforceable ecological triggers that require mining operations to be modified, suspended or ceased where ecological thresholds are breached.

Monitoring alone is not a safeguard. Monitoring simply records decline after it has occurred. Effective environmental management requires clear thresholds, mandatory responses and meaningful accountability. We are serious about protecting taonga species, wetlands and the health of the Tahaaroa Lake system, then there must be consequences when environmental limits are exceeded. Without enforceable triggers, monitoring risks become little more than a record of environmental loss rather than a mechanism for preventing it.

In May 2026, members of the Tahaaroa Lakes Trust and environmental practitioners were denied access to the lake system and threatened with trespass action by TIL. This not only restricted our ability to undertake environmental surveillance and monitoring, but also impeded our ability to fulfil our responsibilities as kaitiaki of the lakes and surrounding environments. While the immediate issue attracted significant concern, access for ongoing monitoring and kaitiaki activities remains unresolved. This uncertainty undermines our ability to independently observe environmental conditions, verify compliance, respond to emerging issues and maintain long-term data sets that are critical for understanding changes within the lake system. For tangata whenua, mana whenua, access is not simply a matter of convenience. It is fundamental to the exercise of kaitiakitanga. If we are expected to participate meaningfully in the stewardship of our taonga and lakes, then secure ongoing access must be guaranteed rather than dependent on the discretion of the consent holder.

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And then just to wrap us up is our position. We do not support the substantive application in its current form and seek amendments and appropriate conditions. Significant concerns remain regarding groundwater drawdown, hydrological changes and effects on wetland systems. Ecological effects are not limited to individual species but relate to the overall health and functioning of interconnected ecosystems. A precautionary approach is necessary where uncertainty remains and monitoring must include meaningful mana whenua involvement and recognition of cultural indicators alongside technical monitoring. Kia ora.

[applause]

DAVE SERJEANT: Kia ora, thank you. I have a question on the content of your presentation and whether that is a complete one for one repeat of material that we have already or whether it's similar material but obviously recompiled in some way.

NGAHUIA HERANGI: It's similar to the information that's already provided in our comments, in our position statements, but also supplementary.

DAVE SERJEANT: Right.

NGAHUIA HERANGI: It's a bit more in detailed.

DAVE SERJEANT: Okay, I'm of course thinking about the record of the day, and it's important that other people can see what we've seen, and just wondering about the best way of actually incorporating that into the record of the day. I'm thinking of what I've seen and also what I've heard cos the panel has to think about the record of the day and how that's presented, whether it may be there is a transcript. If that's the case, it would be easier for a full transcript to be created with your soft copy of what you've read out.

In terms of the presentation, Taituwha, yes, same sort of question really. I mean, I did recognise material you gave, but again I can't be sure that it was exactly the same as what was in other material you've presented. The easiest way would be to obviously get a copy of that. Anyway, we can talk about the logistics later, but I just wanted to be clear cos it did appear to me that particularly what I've been looking at, there is some new material there.

NGAHUIA HERANGI: Right.

MARTIN WILLIAMS: Did you want to ask a question?

LOU WICKHAM: Yeah, just quickly, the picture that's on the screen before us now, can you talk us through that please?

NGAHUIA HERANGI: Yes, so this is a sandstorm. I don't know if you realise, but there's a sandstorm today. Maybe you can play it again, but this gives you an aerial version of what a sandstorm looks like in Taharoa.

[background chat].

NGAHUIA HERANGI: Yeah, that's a clear day, but the sandstorm that's happening today is a southerly. Somebody already touched on the tailings that are in the southern area, and it's coming from the tailings in the southern block.

I just wanted to go back to a question that you asked earlier about the iwi that's living in the village. The iwi isn't from Aotearoa. The iwi that was being referred to was from a different country, so we are the minority living in the village now. The pendulum has changed. We used to be the majority, but now we're the minority living in the village. That is the same with working out on site as well.

MARTIN WILLIAMS: Thank you very much for that presentation. I just wanted to disclose that the comment you just made about the sandstorm, just for the record, there were a couple of people over the lunch break who were encouraging us to observe that as a sandstorm. We made the observation as a panel that the wharekai conversation is different than the wharenui conversation, so thank you for bringing that into the wharenui, so it's on the record. We left that there over the lunch break and preferred to hear it on the table here, so thank you for raising that directly because that had been shared with us as we walked outside.

The pātai I had was your cultural monitoring framework that the Lakes Trust has got. You were talking about the use of a database, so you could have people on the ground, out in the field recording taonga species and upload it to the database, and you can build up a record of information. I heard you focus on monitoring restoration, participation and ongoing management, and improvement of the fish passage as being outcomes that could be delivered through that type of monitoring framework. Is there a name for that monitoring programme, for that resource, for that tool that could be for the panel's consideration, referenced in consent conditions? Is it a tool that could be brought into a conditions framework somehow and referenced or would it need more to it than that?

- NGAHUIA HERANGI: Yeah, it is. There's a digital platform that the Lakes Trust have, and then there's also an app to collect all the data. The name of that, that resource, haven't really thought about it.
- MARTIN WILLIAMS: No, it's just if you were going to draft a condition, these aren't decisions, we're just exploring ideas. You're putting things on the tip [? 35:33]. The Applicant will have a view about this, but say there is monitoring required by the consent and if there were to be involvement of kaitiaki in that monitoring, presumably this is a resource that could be referenced and described in a consent condition, with that participation, could you continue to operate in that way as part of the consent framework. Is that how you see it?
- NGAHUIA HERANGI: Yes, absolutely.
- MARTIN WILLIAMS: You'd be willing and happy to participate in that way?
- NGAHUIA HERANGI: Yeah, 100%.
- MARTIN WILLIAMS: Okay, well, that's something for the Applicant to think about. Thank you.
- LOU WICKHAM: Thank you. Just going back to the picture on the screen before us, where was the picture taken? I'm interested in if you have any comments for us on ... you use the word sandstorm, which implies to me a specific event as opposed to normal day-to-day occurrence. Has this changed from historic events cos sand as opposed to what looks to be a very fine, almost like a mist on the video before us. Could you comment on that please?
- NGAHUIA HERANGI: Yeah, I think it's taken from Te Kooraha. It's just got that elevation. Is Keith here?
- UNIDENTIFIED MALE: Yeah, he's right there.
- NGAHUIA HERANGI: Oh yeah, there. Is that right?
- KEITH: What's that?
- NGAHUIA HERANGI: Where was it taken?
- KEITH: Directly above Te Kooraha.
- LOU WICKHAM: On a drone?
- NGAHUIA HERANGI: Yeah, drone. And then you had some other questions. We refer to it as a dust storm rather than a sandstorm cos it's got that look to it.

LOU WICKHAM: My other question was, I guess I'm asking is it a frequent occurrence? You used the word dust storm and how has that changed over the years please?

NGAHUIA HERANGI: It's frequent even in summer. It could be successive days, three/four days in a row, and it's getting worse.

FLEUR PASSAU: We never had it before. Historically, these dust storms didn't occur predominantly because the dunes that were here were well vegetated; however, these dust storms have started. They've probably become prominent in the last three to four years, since they first started getting reported. Yeah, about four years and they're progressively getting more frequent. We do have that wonderful west wind, which accounts for that.

JODI WHITIORA-TE UIRA: I actually have been informed from the Ministry of Health about collecting data because there's been a lot of subjective data from people living here about them suffering from potentially respiratory distress. We have kaumatua that don't want to return to their homesteads that live here because they are scared to come back. Every time they come here, their asthma flares up (COPD). The health department have come back and said they need doctors' notes, subjective data plus objective data to help support that this is an ongoing health issue. Obviously, everyone here is not enrolled in the same GP so collecting that data becomes another task, but subjectively if you speak to them, it is a big issue on a daily basis. I must say, every time I come home, cos I'm a health professional, they tell me, 'I'm sick'. But what does sick mean? Getting down to the nitty-gritty, it does come back to the dust. Every single one sees this because of the dust, but connecting it to a health condition, maybe that's where we can get some support.

FLEUR PASSAU: I think another korero would be from our kura. Our kura has, I think they currently have an application with the Ministry of Health in respect to the effects of the dust on the kura, where they have had to close the school a few times now because the dust has been so bad that they can't have the tamariki at the kura. It's that frequent now that whenever our tamariki go outside, they always come back in covered. Whether they go onto a trampoline, whether they're on the paddock, they'll come in and they've got it all on their clothes.

Predominantly no one will hang their washing out anymore because it ends up coming back dirtier than it does clean. Predominantly most

whanau will use dryers now, and it's just everywhere on a constant daily.

I think it's pertinent to also say that that's only occurred in the last three to four years. That's only started occurring. Thank you.

MARTIN WILLIAMS: Thank you very much.

DAVE SERJEANT: That's the entire presentation? No one else has anything to add? Thank you.

MARTIN WILLIAMS: Thank you very much.

[applause].

[End of Recorded Material: 41:31]