

Appendix A – Schedule of Interim RFI Responses

RFI	Condition	Request	Response
1	AUTH 14.01 (Water Permit – Divert Groundwater & Surface Water Take)	Discussion at the PFC indicated a preference for not augmenting Mitiwai Stream flow on the basis that the WWLA hydrogeological modelling predicted the drawdown effects would be less than 10% of mean annual low flow (MALF), which is less than minor. The Panel requests new conditions to be devised by experts for the Applicant, DoC, NMKTH, TNNN and WRC on maintenance and monitoring of Mitiwai Stream through management of the Central Pit operations. Specifically, the Panel requests Ecologists/Experts to confer and advise on: 1. Condition to verify or revise the estimated 45L/s Mitiwai MALF and 31L/s Q5 (using an external control catchment or other equivalent method) as part of baseline monitoring. 2. Condition to determine the minimum environmental flow for lower Mitiwai Stream. 3. Limit conditions for Central Pit management (specifically maximum groundwater drawdown limits in terms of RLm – mAMSL for Stages 1 to 4 of Central Mine Pit). 4. Conditions outlining revised stream low flow trigger level criteria and responses if Central Pit depletion effects on Mitiwai Stream greater than 10% MALF or appropriate alternative criteria (such as minimum environmental flow).	<i>This response has been jointly prepared by Joshua Mawer (hydrologist, WWLA), Jacob Scherberg (Hydrogeologist, WWLA) Jonathan Williamson (hydrologist and hydrogeologist, WWLA) and Grant Eccles (planner, Tonkin & Taylor Limited).</i> We understand the intent behind this RFI is to avoid augmentation of the Mitiwai Stream, if possible, and to ensure that there are appropriate parameters set out in the consent conditions that will ensure the magnitude of potential dewatering of the lower Mitiwai Stream that could result from mining of the Central Pit is less than minor. <u>Item 1</u> The possibility of verifying or revising the estimated MALF and Q5 for the Mitiwai Stream was raised during the Panel Facilitated Conference due to the number of spot gauging flow measurements from the Mitiwai Stream that were available at the time of preparing Appendix N – Hydrogeology Assessment (Groundwater Effects). At that time, six spot gauging measurements were available – three at the upstream site (Flow Site 2¹) and three at the downstream site (Flow Site 3). The Panel has suggested the use of an external control catchment or other equivalent method as part of the baseline monitoring for verification purposes. The use of an external control catchment is often referred to as a “paired catchment” approach or assessment and involves developing a statistical function relating the flow in an external (i.e., unaffected) catchment to the flow in the catchment of interest (i.e., the Mitiwai in this instance). This method requires both catchments to be of similar characteristics (e.g., size, topography, soils, geology, land cover) and subject to similar climate regimes (e.g., rainfall and evaporation conditions). We have reviewed the surrounding catchments and have not identified any suitable catchments. The surrounding catchments are all smaller in size/extent, and do not reflect the characteristics of the Mitiwai Stream (i.e., headwaters underlain by greywacke and lower reaches by sands). For this reason, we do not believe a paired catchment approach would provide a meaningful method of verifying or detecting a reduction in streamflow in the Mitiwai from dewatering. It is likely that the inherent uncertainty in a paired catchment assessment would exceed the extremely low and temporary magnitude of effects we are seeking to identify and address through conditions. However, a similar outcome to paired catchment monitoring can be achieved within the same catchment by undertaking monitoring at the two existing locations of Flow Sites 2 and 3, which relate to the upstream portion of the catchment unaffected by mining and the lower portion of the catchment that has potential for impact, respectively. In our view, the best approach to verify, and revise (if necessary), the current estimates of MALF and Q5 is after an additional 12 months of baseline streamflow monitoring and subsequent verification/updates to the Mitiwai Stream rainfall runoff model (the SMWBM). The SMWBM would be calibrated to Flow Site 2 to avoid influence from mining on the model calibration. The calibrated model can then be run with an extended data set (approximately 30 years) of historic climate data to generate MALF and Q5 values. This monitoring and verification/revision of the MALF and Q5 would be completed as part of the Annual Monitoring Report (which is required under the Schedule 1: General Conditions, specifically Conditions 44 and 45). The continuous streamflow monitoring at Flow Sites 2 and 3 can be continued and additional spot gaugings collected to further verify and improve the site rating curves. The difference in flow between Flow Site 2 (upstream) and Flow Site 3 (downstream) can be used as an indicator of any potential dewatering effects, instead of the external/paired catchment approach discussed above. If the reduction in flow between Flow Site 2 and 3 exceeds 10% of the verified/revised Q5, additional manual flow gaugings shall be undertaken within 10 days of the exceedance being identified in order to validate the reduction in flows. If the reduction in flow is validated, this would trigger the requirement for augmentation of the Mitiwai Stream to achieve the verified/revised Q5, in accordance with the proposed conditions relating to augmentation in AUTH142035.14.01. The above approach is set out in a proposed amendment to Condition 2 of AUTH142035.14.01 as follows (with new changes shown in yellow highlight): 2. The Consent Holder shall monitor the base flow in the Mitiwai Stream at the locations shown in Figure 2 below to determine the Mean Annual Low Flow (“MALF”) and Q5 for the stream. (a) If extraction of sand is occurring in the Central Block within ‘Pit 3-1’ as shown in Figure 1 below, and the base flow of the Mitiwai Stream during the summer months period from 1 December – 1 March-May as measured at the upstream flow recording site in Figure 3 is 28.0 L/s or less, depleted by greater than 10% of the MALF as measured at the downstream flow recording site in Figure 2 below; and (b) if the flow of the Mitiwai Stream as measured at the upstream flow recording site in Figure 2 below is not depleted by greater than 10% of the MALF (and manual flow gaugings validate the difference in flows); then (c) the base flow in the Mitiwai Stream must be augmented at the flow augmentation point shown in Figure 2 with fresh water with an Electrical Conductivity not exceeding 1000µS/cm, to achieve the MALF-a base flow of 28 L/s or greater as measured at the downstream flow recording site shown in Figure 2. <u>Item 2</u> Item 2 of this RFI requested consideration of determining a site-specific minimum environmental flow condition for the Lower Mitiwai Stream (rather than the default minimum flow specified in the WRP). The potential effects of dewatering of the Mitiwai Stream are temporary in nature and have been assessed as extremely low magnitude. The potential effect of dewatering is only considered plausible when mining is being undertaken in the Central Block, in close proximity to the Mitiwai Stream at elevations below approximately 19.5 m (NZVD2016). In addition, the Hydrogeology Assessment (Groundwater Effects) assessment predicted the magnitude of potential dewatering would be less than 10% of MALF. TIL is currently mining within pit 1 of the Central Block with the current dredge pond water level at RL-8.5m. No seepage from the Mitiwai Stream side of the pit has been observed, indicating that observations to date support the modelling outputs. TIL also carefully monitors all of its mining activities and reports that it has never observed any seepage from either the Mitiwai Stream or the Wainui Stream when undertaking mining in groundwater. TIL intends to provide further information about these observations prior to expert conferencing on this issue.

¹ Refer to figure D1 of WWLA (2025) Taharoa Mine Expansion – Assessment of Groundwater Effects. WWLA1303. Rev 3. 17 September 2025.

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			Determining a site-specific minimum environmental flow condition requires comprehensive flow monitoring and ecological assessment (habitat classifications across a range of transects under a range of differing flow conditions). In the context of an effect that has been (conservatively) assessed as less than minor, we do not consider that developing a site specific minimum environmental flow condition is necessary or proportionate to manage this effect. We instead propose to maintain the default provisions of the Waikato Regional Plan (i.e., 95% of Q5). <u>Item 3</u> Item 3 of the RFI requests that maximum groundwater drawdown limits be established for the Central Block in terms of conditions setting a specific RLm for each modelled pit. We acknowledge that maximum groundwater drawdown is largely controlled by the excavation depth. However, groundwater drawdown is not in and of itself, an effect. The primary effect (albeit unlikely) that may arise from mining of the Central Block is depletion of the Mitiwai Stream. The depths of excavation modelled were indicative for effects assessment purposes only to inform the effects assessment for the application and the preparation of appropriate consent conditions to manage potential effects on the Mitiwai. Given that the (conservative) modelling (which has now been verified by current on-site work as being accurate) indicated that there was an extremely low potential for, and magnitude of, adverse effects, the proposed conditions as proposed by TIL are focused on the monitoring and management of the potential effects of any drawdown that might occur rather than to what depth mining can occur. This is considered to be an appropriate and proportionate response. <u>Item 4</u> In terms of Item 4 of the RFI, the architecture of TIL's proposed consent conditions already requires augmentation of the flow in the Mitiwai Stream based on the trigger levels discussed above, and only if mining is being carried out in the modelled Pit 1 in the Central Block (i.e. where mining is currently occurring without any observed groundwater seepage from the Mitiwai side of the pit). We acknowledge the comments made at the Panel Facilitated Conference that the augmentation of the flow in the Mitiwai Stream with water initially taken from the Wainui Stream may generate an adverse cultural effect in terms of the mixing of wai. However, it is apparent that the need for augmentation of the flow in the Mitiwai Stream is very unlikely to ever be required, and if it is required will be only for a short duration and be extremely minor in scale. The potential for adverse cultural effects is therefore assessed as also being less than minor, and if such effects are generated (i.e. in the unlikely event augmentation is required) it will be temporary and short-term in duration. On the basis of all the above, it is also worth considering whether any conditions are required at all in terms of addressing potential adverse effects on flow reduction in the Mitiwai Stream associated with groundwater drawdown, given the conservatively assessed less than minor effect.
2	AUTH 05.01 (Water Permit - Surface Water Take)	The Panel requests Ecologists/Experts for the Applicant, DoC, NMKTH, TNNN and WRC to confer and advise on whether 8.53 m RL as a cease take is needed and/or an appropriate level.	<i>Response jointly prepared by Jared Pettersson (environmental engineer, Envisor), Joshua Mawer (hydrologist, WWLA), Jonathan Williamson (hydrologist and hydrogeologist, WWLA) and Grant Eccles (planner, Tonkin & Taylor Limited).</i> Proposed condition 7 of AUTH142035.05.01 (water permit) for the take of water from the Wainui Stream, for the purpose of ship loading and iron sand mining operations, states that:² <i>Water must not be taken when the Lake Taharoa water level at or about NZTM 1751411.597 5774358.648 is less than 8.53 metres RL as measured by the Local Datum Survey Marker.</i> The 8.53 m RL has been the cease take level since the dam was constructed in the mid 1970's. The water right granted in 1988 (see Attachment 1) included 8.53 m RL as the cease take level. This cease take level has been incorporated in subsequent consents issued to TIL over time, as there was no effects-based reason to change it. TIL has advised that to the best of its knowledge it has only ever been reached on one occasion during the mine's operation (based upon a note included on a drawing from the 1990's). The date this low water level occurred is unknown. The natural (pre-dam) water level in Lake Taharoa is understood to be 9.11 m RL, and the water level in the Wainui Stream at the dam site being 6.46 m RL. The datum for these levels is likely to be consistent with that used for the dam levels and is linked to a fixed point in Kawhia. This indicates a natural 2.65 m drop in elevation along the stream between the lake outlet and the dam site. Post dam, the head loss from the lake to the dam is approximately 0.15-0.17 m, based on TIL's water level monitoring data from within the lake and behind the dam. If the water level behind the dam reached 8.53 m, there would still be 2.07 m depth of water above the natural water level in the Wainui stream. A bathymetric survey undertaken by Discovery Marine Limited (DML) in 2007 indicates the natural bed level of the Wainui Stream, where it transitions out of the main lake body, is approximately 8.45 m RL. Accordingly, as the cease take level of 8.53 m RL is set 0.08 m higher than the stream bed, this level physically ensures that water can continue to flow from the lake into the Wainui Stream, down to the dam and outlet. In the previous RMA consenting process (which granted the consents that are being replaced through this application), Waikato Regional Council's hydrologist (Dr Ed Brown) concluded³ that the level of 8.53 m is necessary to maintain a minimum flow in the Wainui Stream during shiploading events. The physical characteristics of the dam and channel remain as they were in the previous consenting process. We see no reason to alter the long-standing cease take level of 8.53 m. WRC has also not requested that this level be changed in its comments on the application.

² TIL's proposed resource consent conditions (dated 22 June 2026) – Attachment O to the Applicant's response to comments.

³ WRC Consent Evaluation Report, Dean Lal, 5 April 2006.

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			We re-iterate that the cease take level of 8.53 m RL is the final backstop limit, and lake levels are not intended to be held at this level for extended periods of time. The Lake Taharoa Water Balance⁴ modelling also demonstrated that this would not occur, and that lake levels would return to typical levels (~10 m RL) each winter. The following more conservative trigger levels/conditions are required to be implemented to prevent and manage potential environmental effects prior to reaching the 8.53 m RL cease take level: - AUTH142035.05.01 – Proposed condition 10: 9.6 m RL lake level trigger – if the lake level drops below 9.6 m for a continuous 30-day period, TIL is required to implement management responses to reduce its take as far as practicable. - AUTH142035.02.01- Proposed condition 4: Requires maintenance of a residual flow level of 10 L/s in the Wainui Stream – if the flow level drops below this, TIL would be required to initiate pumping water over/through the dam outlet. - AUTH142035.03.01 – Proposed condition 7: 9.45 m RL trigger – if the water level immediately behind the dam drops below 9.45 m, TIL must initiate pumping/maintenance of the flow through the fish pass to ensure it is at least 24 L/s. - The Lake Level and Water Management Plan also specifies a range of environmental monitoring requirements for periods of low lake levels. We note the Panel's concerns as expressed at the Panel Facilitated Conference that if the RL 8.53 m cease take level was reached, freshwater for augmentation purposes (fish pass, wetlands etc) would not then be available at the time it may be needed the most. In response we note the following: (i) even at the cease take level there will still be sufficient volumes of water available to be taken from the Wainui Stream for augmentation purposes; (ii) on-site stored water that meets the water quality requirements will still be available to be used for augmentation; (iii) an exemption could be provided from the RL 8.53 m cease take restriction to allow for sufficient volumes of water for augmentation purposes to continue to be taken – Mr Eccles has proposed an amendment to the relevant consent condition to allow for this. In conclusion, we are of the opinion that the 8.53 m cease take level is appropriate from a hydrological and operational perspective. This level is consistent with previous consents and there is no effects-based reason for it to be changed.										
4	AUTH 16.01 (Destroy, disturb, dewater natural inland wetlands)	The Panel requests Ecologists/Experts for the Applicant, DoC, NMKTH, TNNN and WRC to confer & propose specific conditions based on agreements recorded at [40] and [44] of their Joint Witness Statement dated 6-7 July 2026.	Response jointly prepared by Hamish Dean (ecologist, SLR Consulting Limited) and Grant Eccles (planner, Tonkin & Taylor Limited) Conditions 3 and 4 of AUTH142035.16.01 have been amended to reflect and/or respond to the matters set out in paragraph 40 of the JWS, as follows: 3. The Consent Holder shall establish a minimum of 8.3 hectares of new natural inland wetland habitat within the Consent Area area surrounding Site 27 as mapped on Figure 3 of the NIWBMP, either through the creation of new wetland areas or by augmenting existing constructed wetlands to achieve the total aArea rRequirements and Progress Targets as per Table 1. The purpose of this new habitat is to generate a net gain offset of wetland vegetation cover to address the loss of wetlands and generate additional gain to compensate for permanent loss of seepage wetlands. <u>Table 1: New Wetland Area Requirements and Progress Targets</u> <table><tr><th><u>New Natural Inland Wetland Area Requirement</u></th><th><u>Progress Targets</u></th></tr><tr><td><u>To offset the loss of 0.49 ha of shallow water wetland, establish a minimum of 2 ha of shallow water habitat (average water depth <50 cm) to achieve 75% indigenous cover, including at least 25% cover of submerged macrophytes, within 10 years of destruction of Wetlands 7 and 17 as shown on Figure 1.</u></td><td><u>Within 5 years of destruction of Wetlands 7 and 17 as shown on Figure 1, indigenous cover in the 2 ha of shallow water habitat must be at least 30% and average water depth must be between 10 cm and 50 cm</u></td></tr><tr><td><u>To offset the loss of 0.03 ha of raupō (Typha orientalis) reedland, establish a minimum of 0.5 ha of wetland with a minimum of 50% indigenous cover within 10 years of destruction of Wetland 23 as shown on Figure 1.</u></td><td><u>Within 5 years of destruction of Wetland 23 as shown on Figure 1, raupō cover in the 0.5 ha of raupō offset wetland must be at least 20%.</u></td></tr><tr><td><u>To compensate for the loss of 3.72 ha of seepage wetland, establish at least 5.8 ha of wetland habitat that must comprise of saturated soils (i.e. not standing water) that must reach 90% indigenous cover within 5 years of destruction of Wetlands 5, 6, 7, 20 & 25 as shown on Figure 1.</u></td><td><u>Within 2 years of the destruction of wetlands 5, 6, 7, 20 & 25 as shown on Figure 1, indigenous vegetation cover must be at least 40% in both wetland and buffer habitat.</u></td></tr><tr><td><u>Minimum of 30m wide terrestrial buffer planting around the offset & compensation site.</u></td><td><u>Within 5 years of the destruction of any of the wetlands authorised by this consent, 90% indigenous vegetation cover must be achieved within the planted buffer.</u></td></tr></table> The works to establish the new wetland habitat required by this condition shall start within 2 years of the destruction of any natural inland wetland that is authorised to be destroyed or dewatered by this consent as shown on Figure 1 below, as far as reasonably practicable. 4. The new wetland habitat required by Condition 3 shall be designed, implemented, and maintained (maintenance could include but not be limited to additional planting, weed control, hydrological adaptations) to achieve no net loss of wetland habitat and ecological function, as a result of the destruction of wetlands identified on Figure 1 (wetland offset). The responses to be undertaken if targets are not met are set out in The specifications for the offset must be included in the Natural Inland Wetland and Buffer Management Plan required by the Schedule 1 General Conditions.	<u>New Natural Inland Wetland Area Requirement</u>	<u>Progress Targets</u>	<u>To offset the loss of 0.49 ha of shallow water wetland, establish a minimum of 2 ha of shallow water habitat (average water depth <50 cm) to achieve 75% indigenous cover, including at least 25% cover of submerged macrophytes, within 10 years of destruction of Wetlands 7 and 17 as shown on Figure 1.</u>	<u>Within 5 years of destruction of Wetlands 7 and 17 as shown on Figure 1, indigenous cover in the 2 ha of shallow water habitat must be at least 30% and average water depth must be between 10 cm and 50 cm</u>	<u>To offset the loss of 0.03 ha of raupō (Typha orientalis) reedland, establish a minimum of 0.5 ha of wetland with a minimum of 50% indigenous cover within 10 years of destruction of Wetland 23 as shown on Figure 1.</u>	<u>Within 5 years of destruction of Wetland 23 as shown on Figure 1, raupō cover in the 0.5 ha of raupō offset wetland must be at least 20%.</u>	<u>To compensate for the loss of 3.72 ha of seepage wetland, establish at least 5.8 ha of wetland habitat that must comprise of saturated soils (i.e. not standing water) that must reach 90% indigenous cover within 5 years of destruction of Wetlands 5, 6, 7, 20 & 25 as shown on Figure 1.</u>	<u>Within 2 years of the destruction of wetlands 5, 6, 7, 20 & 25 as shown on Figure 1, indigenous vegetation cover must be at least 40% in both wetland and buffer habitat.</u>	<u>Minimum of 30m wide terrestrial buffer planting around the offset & compensation site.</u>	<u>Within 5 years of the destruction of any of the wetlands authorised by this consent, 90% indigenous vegetation cover must be achieved within the planted buffer.</u>
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⁴ Appendix I – Hydrology: WWLA. 2025. Lake Taharoa Hydrology Assessment. WWLA0546. Rev 5. 5 September 2025.

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			The changes set out above reflect updates made to the draft Natural Inland Wetland and Buffer Management Plan (NIWBMP), a copy of which is included as part of TIL's interim response (see Appendix B to the Memorandum of Counsel on behalf of TIL dated 8 September 2026). For ease of reference, the amendments to conditions are explained in more detail in the table below, in response to each of the matters set out at paragraph 40 of the JWS. As explained in section 4.3 of the revised draft NIWBMP, the proposed offset and compensation area has been verified using the Biodiversity Offset Accounting Model (BOAM), which confirms that it will achieve the desired outcomes for those wetlands being offset/compensated for.										
			<table><tr><th>Statement from JWS</th><th>TIL Response</th></tr><tr><td colspan="2">JWS Paragraph 40 – All experts agree the following matters must be included in consent conditions to ensure the success of the offset and compensation:</td></tr><tr><td>(a) Purpose of the condition (to generate a net gain offset of wetland vegetation cover to address the loss of wetlands and generate additional gain to compensate for permanent loss of seepage wetlands).</td><td>Condition 3 of AUTH142035.16.01 has been amended to expressly state the purpose of the new habitat.</td></tr><tr><td>(b) Commencement of implementation of the offset and compensation actions is to occur no later than six years prior to any direct loss of wetland habitat from mining activities.</td><td>Condition 3 of AUTH142035.16.01 has been amended to require that works to establish the new wetland habitat required under this condition must start within 2 years of the destruction of any natural inland wetland that is authorised to be destroyed or dewatered under the consent.</td></tr><tr><td>(c) Description and mapping of spatial extent of the offset and compensation site and the planted buffer (noting paragraph 33 above in relation to naming this area). Planted buffer (i) HD and HM acknowledge wider buffers are always better, but they consider a 30m planted buffer is sufficient. (ii) CB, FM and KM consider a wider buffer would provide more hydrological protection for wetlands given the potential requirement for water augmentation as a mitigation measure. They also consider a wider buffer would provide more ecological protection. (iii) FP and TK consider a 100m planted buffer is appropriate. The 100 metre buffer is not presented as an absolute ecological threshold. Rather, it is a precautionary management measure that provides sufficient separation to reduce the likelihood of adverse effects on a taonga ecosystem. From a mātauranga Māori perspective, where uncertainty exists, it is more appropriate to err on the side of protecting the mauri of the wetland than relying on remediation after degradation has occurred. Unplanted set back (i) While a wider planted buffer would offer better ecological protection, all experts consider that an additional unplanted set back within which mining activities would be prohibited (in addition to a 30m planted buffer) is preferable over having a 30m planted buffer and no setback. This would offer more protection from hydrological, sediment and disturbance effects. The set back would need to be specified in conditions and be subject to the weed and pest management conditions that relate to the site. (ii) FM, KM and CB consider that an unplanted set back of 70m in addition to a 30m planted buffer would be appropriate. 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As set out in TIL's response to the Panel's RFI dated 23 July 2026 (see in particular response to RFI 25 at pages 42 to 44), and as discussed at the Panel Facilitated Conference, any greater buffer width will be significantly more onerous than necessary when having regard to the detrimental commercial and economic impacts of sterilising a significantly greater area of resource.</td></tr></table>	Statement from JWS	TIL Response	JWS Paragraph 40 – All experts agree the following matters must be included in consent conditions to ensure the success of the offset and compensation:		(a) Purpose of the condition (to generate a net gain offset of wetland vegetation cover to address the loss of wetlands and generate additional gain to compensate for permanent loss of seepage wetlands).	Condition 3 of AUTH142035.16.01 has been amended to expressly state the purpose of the new habitat.	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(a) Purpose of the condition (to generate a net gain offset of wetland vegetation cover to address the loss of wetlands and generate additional gain to compensate for permanent loss of seepage wetlands).	Condition 3 of AUTH142035.16.01 has been amended to expressly state the purpose of the new habitat.												
(b) Commencement of implementation of the offset and compensation actions is to occur no later than six years prior to any direct loss of wetland habitat from mining activities.	Condition 3 of AUTH142035.16.01 has been amended to require that works to establish the new wetland habitat required under this condition must start within 2 years of the destruction of any natural inland wetland that is authorised to be destroyed or dewatered under the consent.												
(c) Description and mapping of spatial extent of the offset and compensation site and the planted buffer (noting paragraph 33 above in relation to naming this area). Planted buffer (i) HD and HM acknowledge wider buffers are always better, but they consider a 30m planted buffer is sufficient. (ii) CB, FM and KM consider a wider buffer would provide more hydrological protection for wetlands given the potential requirement for water augmentation as a mitigation measure. They also consider a wider buffer would provide more ecological protection. (iii) FP and TK consider a 100m planted buffer is appropriate. The 100 metre buffer is not presented as an absolute ecological threshold. Rather, it is a precautionary management measure that provides sufficient separation to reduce the likelihood of adverse effects on a taonga ecosystem. From a mātauranga Māori perspective, where uncertainty exists, it is more appropriate to err on the side of protecting the mauri of the wetland than relying on remediation after degradation has occurred. Unplanted set back (i) While a wider planted buffer would offer better ecological protection, all experts consider that an additional unplanted set back within which mining activities would be prohibited (in addition to a 30m planted buffer) is preferable over having a 30m planted buffer and no setback. This would offer more protection from hydrological, sediment and disturbance effects. The set back would need to be specified in conditions and be subject to the weed and pest management conditions that relate to the site. (ii) FM, KM and CB consider that an unplanted set back of 70m in addition to a 30m planted buffer would be appropriate. (iii) As noted above, FP and TK consider a 100m planted buffer is preferred; however, a set back 70m and 30m planted buffer could be an alternative	Condition 3 of AUTH142035.16.01 has been amended to refer Figure 3 of the revised draft Natural Inland Wetland and Buffer Management Plan (NIWBMP), which is a map showing the spatial extent of the offset and compensation site (being Site 27) and the planted buffer areas. The nature and extent of the areas making up the offset and compensation site are also described in Table 1 of Condition 3 and section 4.2 of the draft NIWBMP. In terms of the different positions regarding the extent of the planted buffer around the offset and compensation site that are set out in the JWS, TIL's position (as informed by the advice of its expert ecologist, Mr Dean) firmly remains that 30m is an appropriate buffer width. As set out in TIL's response to the Panel's RFI dated 23 July 2026 (see in particular response to RFI 25 at pages 42 to 44), and as discussed at the Panel Facilitated Conference, any greater buffer width will be significantly more onerous than necessary when having regard to the detrimental commercial and economic impacts of sterilising a significantly greater area of resource.												

RFI	Condition	Request	Response	
			<i>(d) Measurable offset and compensation outcomes required (extent and condition).</i>	Condition 3 of AUTH142035.16.01 has been amended to include Table 1, which sets out specific offset outcomes in relation to the shallow water wetland and raupō wetland habitats that are to be lost and compensation outcomes for the seepage wetland habitat that will be lost. These include requirements relating to the extent of habitat to be provided, water depth and vegetation cover. These requirements are also included in Section 4.5 of the draft NIWBMP.
			<i>(e) Timebound actions required to achieve outcomes, including planting and maintenance, pest and weed management, hydrological changes (including water management), earthworks.</i>	Condition 3 of AUTH142035.16.01 has been amended to include Table 1, which provides timeframes within which the outcomes must be achieved and includes progress targets that must be met within specified timeframes. These requirements are also included in Section 4.5 of the draft NIWBMP.
			<i>(i) FM, KM and CB consider that a strategy for wilding pines should be included in the weed control management plan.</i>	Section 6 of the draft NIWBMP has been updated to include wilding pine in the list of 'problem plants'.
			<i>(f) Triggers and thresholds and performance measures as informed by the offset and compensation design. The specifications for end point state, triggers and performance measures as set out in the monitoring section of the NIWBMP must be incorporated into the consent conditions.</i>	Table 1 in Condition 3 of AUTH142035.16.01 incorporates these measures, which are also set out in Section 4.5 of the draft NIWBMP.
			<i>(g) Contingency measures including additional offset and compensation where required that respond in a timely way to monitoring (e.g. additional and replacement planting to address plant death or slower growth rates than anticipated, additional pest control, actions to address where lake levels too low for augmentation, address spread of invasive aquatic species, to address delays falling short of performance targets, or where more monitoring may be required before actions are taken).</i>	Condition 4 of AUTH142035.16.01 has been amended to specifically refer to the management responses that are to be undertaken if the targets in Table 1 of Condition 3 are not met, referring to the measures set out in the draft NIWBMP (Section 4.8). We note that this does not address the availability of water from the lake for augmentation. This aspect of paragraph (g) is addressed in TIL's response to RFI 2 and RFI 8.
			<i>(h) A legal protection mechanism in perpetuity of the wetland offset and compensation site, planted buffer, and any unplanted set back.</i>	The proffered conditions are the appropriate legal protection mechanism for the offset and compensation site and planted buffers. They require TIL, as consent holder, to maintain the offset and compensation site for the duration of the term of consent. Once the consent expires and use of the land reverts back to The Proprietors of Taharoa C Block, TIL will have no ability to control what is done with the site.
			The matters set out in paragraph 44 of the JWS, in terms of changes to trigger levels and monitoring requirements for wetlands, have largely been addressed as part of TIL's responses to RFI 6 (see below). TIL's responses are set out in the following table.	
			JWS Paragraph 44 – <i>The identified experts consider that the following monitoring and reporting requirements should be incorporated into the proposed consent conditions:</i>	
			<i>(a) All experts agree that the water level triggers and contingency measures discussed below should also apply to the offset and compensation wetland (which is not currently the case in the proposed conditions).</i>	The offset and compensation site is one of the wetlands that has been identified as potentially affected by groundwater drawdown and will therefore be monitored in the same way as the other groundwater affected wetlands in accordance with Condition 5A of AUTH142035.16.01 (discussed in more detail below in TIL's response to RFI 6(2)).
			<i>(b) All experts agree that the current seasonal low trigger (outlined in proposed conditions 5 and 6 of AUTH142035.16.01) could result in stress (including cumulative stress and irreversible loss) on wetland ecosystems. A revised trigger level of mean seasonal water level would be suitable, noting that water levels should be managed to align with natural fluctuations (including rewatering levels).</i>	Condition 5 of AUTH142035.16.01 has been updated to include Table 2 which sets out the methodology for developing and defining revised trigger levels and associated management responses. This is discussed in more detail below in TIL's response to RFI 6(1).
			<i>(c) CB, FP, TK, FM and KM consider monitoring of hydrology and condition at a grouping scale might not recognise gradients in water levels and impacts within individual wetlands and might not pick up degradation. That risk would be overcome by monitoring wetlands individually.</i>	Refer to TIL's response to RFI 6(1).
			<i>(d) TK and FP consider that a Cultural Monitoring Plan be prepared in consultation with the relevant marae prior to the commencement of works. The Plan should incorporate mātauranga Māori indicators and provide for ongoing cultural monitoring, marae participation, and</i>	The proposed conditions of consent already provide for ongoing engagement with mana whenua and The Proprietors of Taharoa C Block (Taharoa C) (as the landowner holding mana motuhake) and the incorporation of mātauranga Māori in the Environmental Management Plan (including the NIWBMP).

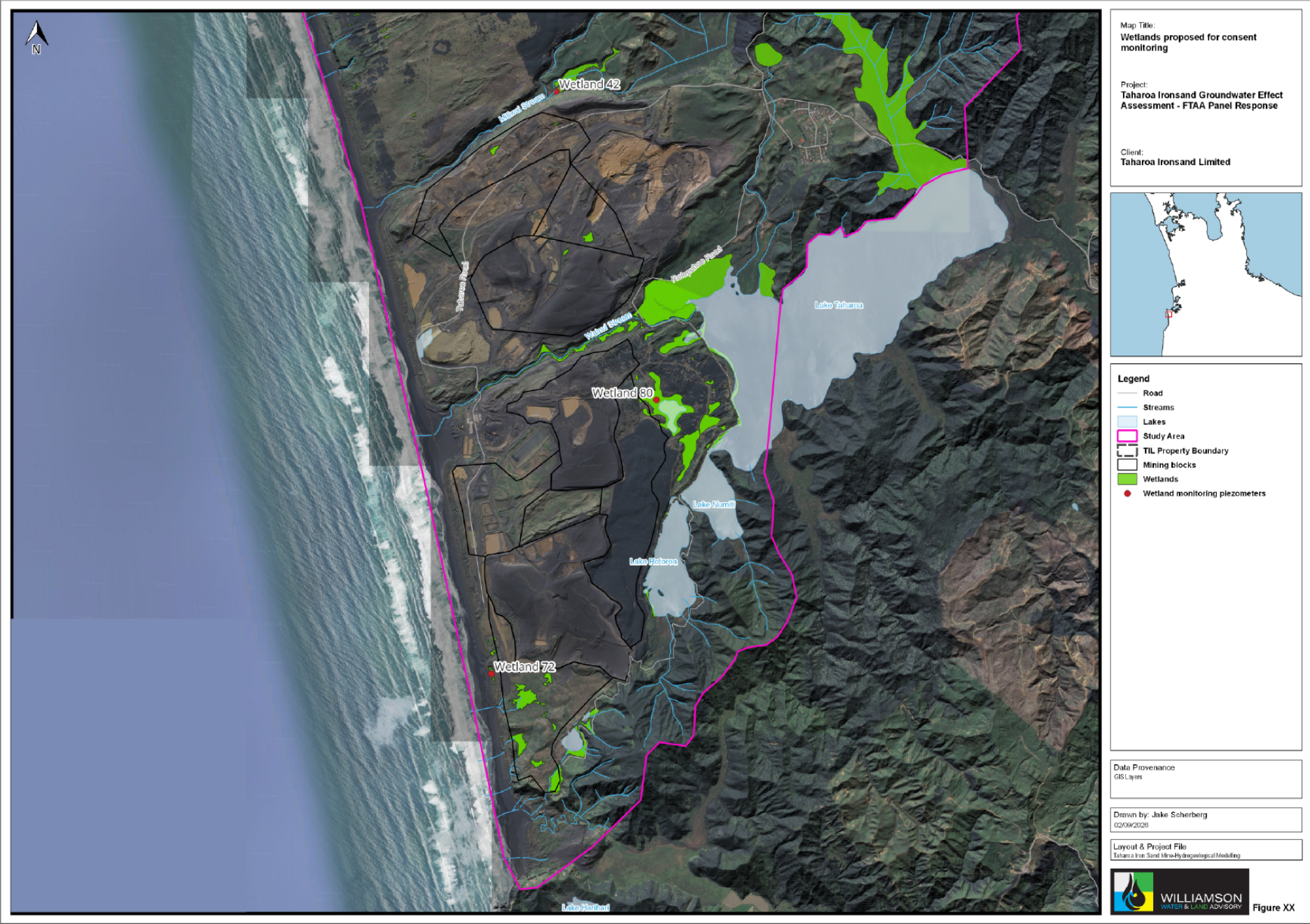
RFI	Condition	Request	Response
			<i>governance involvement throughout implementation, rehabilitation, and long-term management to recognise and respond to effects on cultural values and relationships with wetlands.</i> (i) <i>TK and FP consider that monitoring should include Mātauranga Māori alongside scientific methods to recognise the whakapapa and interconnectedness of wetlands, waterways, species, and people. Monitoring should be guided by MLC (Marae Led Committee/Rōpū) to ensure cultural values, mātauranga, and local observations are incorporated into reporting and long-term management.</i> (ii) <i>TK and FP seek specified, measurable parameters and triggers, mandatory reporting thresholds, independent auditing and monitoring determined alongside the MLC, contain clearly specified timeframes and review clauses, and not rely solely on management plans to address effects. CB, FM and KM support this.</i> (iii) <i>TK and FP consider hydrological and ecological monitoring alone cannot fully measure the health of a wetland. Cultural indicators, including observations of mauri, taonga species, and the relationships between wetlands and connected waterways, should also be monitored. MLC should co-design cultural monitoring and reporting to ensure the wetland's cultural, environmental, and intergenerational values are recognised and maintained.</i> (iv) <i>TK and FP consider that appropriate funding and resources must be provided to enable the hapū, mātauranga Māori knowledge holders, the MLC, and the Tahaaroa Lakes Trust to undertake cultural monitoring, reporting and adaptive management throughout the life of the project.</i> (e) <i>FP considers Ngāti Mahuta ki te Hauāuru should be provided reasonable access to the site to undertake cultural monitoring at agreed intervals, following significant environmental events, and upon reasonable request where concerns regarding environmental effects arise. Records of monitoring undertaken, site access, and any requests made shall be maintained and provided to Waikato Regional Council upon request. FP considers Ngaati Mahuta mātauranga has the ability to work alongside quantitative monitoring to ensure early detection of any adverse effects. TK agrees.</i> (f) <i>FP considers that the results from research undertaken by Tahaaroa Lakes Trust and Ngaati Mahuta between 2023 and 2026 be acknowledged and addressed, including to ensure that it informs baseline monitoring of each retained wetland. TK agrees.</i> (g) <i>FP considers a suitably qualified mātauranga Māori expert, endorsed by Ngaati Mahuta ki te Hauaaauru, should be involved across all aspects of the monitoring plan. FM, TK and CB support this.</i> (h) <i>As noted earlier in this JWS, all experts agree that the specifications for end point state triggers and performance measures for the offset site and planted buffers as set out in the monitoring section of the NIWBMP must be incorporated into the consent conditions.</i> As set out in the Taharoa C's s53 comments (dated 19 June 2026), which express support for the Application, these mechanisms provide for a greater extent of involvement of mana whenua and Taharoa C than there has been in the past. Of most relevance to this matter, these mechanisms include: - The Environmental Management Plan, which facilitates ongoing engagement, information sharing, and must incorporate mātauranga Māori and cultural health indicators. - Annual meetings with stakeholders (including Taharoa C and mana whenua groups) regarding resource consent management matters relating to the Mine. Monitoring information will be available at these meetings. - A Consultation Register to record annual consultation updates. - Annual Monitoring Reports to be provided to the following entities: - Waikato Regional Council; - Taharoa C; - Taharoa Lake Trustees; - Te Ruunanga o Ngaati Mahuta ki te Hauaaauru; - Te Kooraha Marae; and - Aaruka Marae (together the Key Stakeholders) - Ongoing consultation during the development and any material amendments of the Environmental Management Plan with the following entities: - Department of Conservation; and - the Key Stakeholders. - A review condition if there were effects of concern in the future that had not been appropriately managed by the consent conditions (including cultural effects). Table 1 has been added to Condition 3 of AUTH142035.16.01 which includes these measures.
6.1	AUTH 16.01 (Destroy, disturb, dewater natural inland wetlands)	At the PFC, the Panel was interested in conditions that provided for an early warning approach to managing potential adverse ecological effects from groundwater drawdown (for example, as sought by DoC). The Panel requests the following: 1. The hydrologists for DoC and the Applicant (Mr Blyth & Mr Williamson) to confer and advise on how baseline monitoring and trigger levels would	Response jointly prepared by Jake Scherberg (hydrogeologist, WWLA), Jon Williamson (hydrogeologist and hydrologist, WWLA) and Grant Eccles (planner, Tonkin & Taylor) The Hydrological Effects Report identified four wetland groups (identified as Groups 1 through 4) based on location and prevailing hydrological conditions, as detailed in Table 13 of Appendix N: Of these, Wetland Groups 1, 3, and 4 include wetlands that are considered to potentially have some degree of connection to groundwater such that there are potential effects that may occur during the mine stages where excavation is being undertaken closest to a given wetland.

RFI	Condition	Request	Response																
		be determined for water level management for groundwater connected wetlands for the purpose of AUTH 16.01 Condition 5(a).	- Wetland Group 2 is comprised of riparian wetlands along the Wainui Stream and will be supported by surface water inputs. Wetlands in this group are therefore not considered to be at risk of drawdown. Wetland Group 1 is comprised of a single wetland that is currently being monitored by the piezometer C103, installed on 7/5/2025. For Wetland Groups 3 and 4, the most vulnerable wetland (in terms of risk of groundwater drawdown) was identified based on the proximity to mining and potential drawdown, with Wetland 72 being identified for Group 3 and Wetland 80 being identified for Group 4. These wetlands both have monitoring piezometers that were installed on 30/10/2025 and 6/11/2025, respectively. Our recommendation is to adopt a methodology similar to that used to set trigger levels (TLs) for the wetland monitoring required under the consent conditions for Aupōuri Aquifer Water User Group, as this approach was agreed upon by hydrology experts, including Mr. Blyth and Mr. Williamson, and recorded in a joint witness statement that was accepted and adopted by the Environment Court⁵. This approach is explained in more detail in TIL’s response to the Panel’s RFI dated 23 July 2026 (see response to RFI 51 at page 94). Our recommendation is that at least one year of baseline monitoring data is collected at each site. The available data should then be used to calibrate a water balance model to project a longer-term data set of at least 20 years in duration that includes historic wet and dry periods as were experienced during 2023 and 2019/2020, respectively. The simulated data can then be used to set TLs using the approach outlined in Table 2. This approach would set three tiers of TLs based on the simulated data calibrated to the baseline monitoring period (>12 months) as specified in the proffered Condition 5 (a) of AUTH 16.01. It is noted that Condition 61 of the Schedule 1: General Conditions allows for monitoring protocol and TLs to be updated upon a 5-yearly review, which will address the effectiveness of consent conditions based on monitoring data collected, observed effects, and/or policy changes if applicable. In this instance, the Baseline Monitoring period for Wetland Group 1 can use the C103 monitoring data that has already been collected. Wetland Groups 3 and 4 will have reached the period required for baseline monitoring in late October/early November 2026. Table 1. Table of trigger levels setting methodology and management responses. <table><tr><th>Trigger Level</th><th>Metric</th><th>Purpose</th><th>Management Response</th></tr><tr><td>TL1</td><td>5 percentile lowest of natural baseline water level.</td><td>Raise awareness of potential issue approaching if decline continues. To enable TIL to closely monitor wetland water levels and make preparations to augment the wetlands in the affected wetland group if declines continue.</td><td> - TIL to alert WRC that levels are approaching the low end of the anticipated range. - No other action required. </td></tr><tr><td>TL2</td><td>1 percentile lowest of natural baseline water level.</td><td>Acknowledgment that groundwater levels are at the limit of their historical range. Question is whether this is likely to continue, hence initiation of a review.</td><td> - TIL to commission a review of the most likely cause of the water level decline considering: - Seasonal climate (natural vs affected by mining); - Rate of decline - Timing with regard to the mining progression - The review must be completed within one month. </td></tr><tr><td>TL3</td><td>Outcome of TL2 review is that effect is likely induced by mining and likely to continue</td><td>Enact measures to mitigate effect</td><td> - Initiate augmentation of all wetlands in the affected group that are potentially connected to groundwater. - Augmentation in the monitored wetland must 1. meet water quality standards for augmentation water; and 2. sustain water level above the 5th percentile as determined from baseline monitoring. - Other potentially groundwater connected wetlands in the group shall be augmented at an equal depth to the monitored wetland, adjusted for area (i.e. if 50 mm/day is added to Wetland 72, other groundwater connected wetlands in Group 3 shall also receive 50 mm/day of augmentation). - Once the monitored wetland can sustain the TL1 depth without augmentation, all augmentation in that wetland group can cease. </td></tr></table> Condition 5 of AUTH142035.16.01 has been amended to reflect the above, as follows: <i>Prior to the disturbance of any natural inland wetland authorised by this resource consent, the Consent Holder shall undertake baseline monitoring of water levels for 12 months commencing during the first 12 months of exercising the consent <u>AUTH142035.01.01 at the following locations set out in Figure xx:</u></i> <u>Wetland 42</u> <u>Wetland 72</u> <u>Wetland 80</u> (a) <i><u>the purpose of the baseline monitoring is to inform the baseline for long-term simulation modelling and definition of</u> trigger levels for the setting of contingency measures management responses (using the methodology set out in Table 2 below), should water levels recede towards historical lows; <u>and</u></i>	Trigger Level	Metric	Purpose	Management Response	TL1	5 percentile lowest of natural baseline water level.	Raise awareness of potential issue approaching if decline continues. To enable TIL to closely monitor wetland water levels and make preparations to augment the wetlands in the affected wetland group if declines continue.	- TIL to alert WRC that levels are approaching the low end of the anticipated range. - No other action required.	TL2	1 percentile lowest of natural baseline water level.	Acknowledgment that groundwater levels are at the limit of their historical range. Question is whether this is likely to continue, hence initiation of a review.	- TIL to commission a review of the most likely cause of the water level decline considering: - Seasonal climate (natural vs affected by mining); - Rate of decline - Timing with regard to the mining progression - The review must be completed within one month.	TL3	Outcome of TL2 review is that effect is likely induced by mining and likely to continue	Enact measures to mitigate effect	- Initiate augmentation of all wetlands in the affected group that are potentially connected to groundwater. - Augmentation in the monitored wetland must 1. meet water quality standards for augmentation water; and 2. sustain water level above the 5th percentile as determined from baseline monitoring. - Other potentially groundwater connected wetlands in the group shall be augmented at an equal depth to the monitored wetland, adjusted for area (i.e. if 50 mm/day is added to Wetland 72, other groundwater connected wetlands in Group 3 shall also receive 50 mm/day of augmentation). - Once the monitored wetland can sustain the TL1 depth without augmentation, all augmentation in that wetland group can cease.
Trigger Level	Metric	Purpose	Management Response																
TL1	5 percentile lowest of natural baseline water level.	Raise awareness of potential issue approaching if decline continues. To enable TIL to closely monitor wetland water levels and make preparations to augment the wetlands in the affected wetland group if declines continue.	- TIL to alert WRC that levels are approaching the low end of the anticipated range. - No other action required.																
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⁵ Joint Witness Statement – Hydrogeology and Hydrology. 28 January 2022. ENV-2021-AKL-129

RFI	Condition	Request	Response
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(b) determine the lowest and mean natural water level in each wetland in the periods of December – February, March – May, June – August and September – November (summer, autumn, winter, spring).



Trigger levels shall be set using the following methodology:

Table 2. Table of trigger levels setting methodology and management responses.

<u>Trigger Level</u>	<u>Metric</u>	<u>Purpose</u>	<u>Management Response</u>
<u>TL1</u>	<u>5 percentile lowest of natural baseline water level.</u>	<u>Raise awareness of potential issue approaching if decline continues.</u> <u>To enable TIL to closely monitor wetland water levels and make preparations to augment the wetlands in the affected wetland group if declines continue.</u>	<u>TIL to alert WRC that levels are approaching the low end of the anticipated range.</u> <u>No other action required.</u>

RFI	Condition	Request	Response			
			<u>TL2</u>	<u>1 percentile lowest of natural baseline water level.</u>	<u>Acknowledgment that groundwater levels are at the limit of their historical range.</u> <u>Question is whether this is likely to continue, hence initiation of a review.</u>	<u>TIL to commission a review of the most likely cause of the water level decline considering.</u> <u>Seasonal climate (natural vs affected by mining).</u> <u>Rate of decline.</u> <u>Timing with regard to the mining progression</u> <u>The review must be completed within one month.</u>
			<u>TL3</u>	<u>Outcome of TL2 review is that effect is likely induced by mining and likely to continue</u>	<u>Enact measures to mitigate effect</u>	<u>Initiate augmentation of all wetlands in the affected group that are potentially connected to groundwater.</u> <u>Augmentation in the monitored wetland must 1. meet water quality standards for augmentation water; and 2. sustain water level above the 5th percentile as determined from baseline monitoring.</u> <u>Other potentially groundwater connected wetlands in the group shall be augmented at an equal depth to the monitored wetland, adjusted for area (i.e. if 50 mm/day is added to Wetland 72, other groundwater connected wetlands in Group 3 shall also receive 50 mm/day of augmentation).</u> <u>Once the monitored wetland can sustain the TL1 depth without augmentation, all augmentation in that wetland group can cease.</u>
6.2	AUTH 16.01 (Destroy, disturb, dewater natural inland wetlands)	At the PFC, the Panel was interested in conditions that provided for an early warning approach to managing potential adverse ecological effects from groundwater drawdown (for example, as sought by DoC). The Panel requests the following: 2. Ecologists/Experts for the Applicant, DoC, NMKTH, TNNN and WRC to confer and advise on: a. Representative sites for wetland monitoring (as potentially affected by groundwater) i.e. which wetlands per group b. Which indicator species (including taonga species) and how often. c. Methods for doing so.	Response jointly prepared by Hamish Dean (ecologist, SLR Consulting Limited) and Grant Eccles (planner, Tonkin & Taylor Limited) TIL Response: Condition 5A has been amended as follows (with new changes shown in yellow highlight): <u>5A The Consent Holder must engage a suitably qualified and experienced ecologist to undertake baseline monitoring of the extent and health of the wetlands as shown in Table 3 of the NIWBMP within the months of February and March following the commencement of this consent, and every 5 years thereafter. The monitoring shall be undertaken in accordance with section 3.2 of the NIWBMP, including appropriate indicator species. The outcomes of this monitoring shall be provided to Waikato Regional Council.</u> In terms of the specific matters identified in RFI 6(1): (a) Nine Natural Inland Wetlands have been identified as potentially affected by drawdown effects – these are set out in Table 3 of the updated draft NIWBMP. Condition 5A of AUTH142035.16.01 has been updated to refer to Table 3 in stating which wetlands are required to be monitored in accordance with that condition. Monitoring is proposed for all of these wetlands, rather than a representative sample. Each of these wetlands will have one monitoring point (plot) per vegetation type and monitoring will follow a standard methodology. Methods for monitoring these wetlands have now been included in the updated draft NIWBMP. (b) The methodology proposed for this monitoring now includes the use of a methodology which includes the Prevalence Index. The draft NIWBMP has been updated to specifically refer to this methodology, and reference to this methodology and the relevant part of the draft NIWBMP has been added to Condition 5A of AUTH142035.16.01. The Prevalence Index uses the wetland indicator status of each plant species to measure how wet a wetland is – sites with a higher proportion of obligate and facultative wetland species are more likely to be permanently wet. The Prevalence Index can be used alongside vegetation cover and other parameters to monitor if wetlands are drying out or becoming too stressful for wetland species. Taonga species have not yet been specifically included as part of the monitoring methodology but can be discussed at conferencing. (c) See above.			
9	Air permit	The Panel considers that an air discharge permit is needed and requests the Applicant to draft air permit conditions utilising the air related conditions currently inserted to AUTH 01.01 (Conditions 8-16). Applicant also to consider the need for other air related conditions in the consent suite (e.g. AUTH 08.01 and Schedule 1) to be transferred to the air permit. As a general point, at the PFC the Panel expressed a preference for consent conditions to address the “what” (is required) with the “how” to be left to management plans to improve clarity, certainty and enforceability of consents. The air quality experts agreed to confer and advise on good practice consent conditions (as recommended by Mr Stacey for WRC) for dust management (with suggested updates for the dust management plan in chapter 6 of the Environmental Management Plan in Appendix T of the Substantive Application) (refer also next item).	TIL’s responses to these RFIs are set out in the following documents: (a) Memorandum of Counsel on behalf of TIL dated 8 September 2026; and (b) Appendix C to the Memorandum of Counsel – Air Quality Response to Panel RFIs for Taharoa Ironsands, Andrew Curtis (PDP).			
10	Air permit	The Panel requests the air quality experts confer and advise on:				

RFI	Condition	Request	Response
		1. Good practice conditions of consent for managing dust (as recommended by Mr Stacey refer previous point) in the new air permit. 2. The Panel further requests draft consent conditions requiring an action plan with specific actions to be undertaken to reduce overall site PM10 emissions (e.g., xx ha of stabilisation/rehabilitation of existing exposed areas by <i>insert date</i>) if elevated annual PM10 concentrations are measured at Te Kura o Taharoa.	
13	AUTH 05.01 (Water Permit - Surface Water Take)	Discussion at the PFC addressed the range of wetland types and locations that would be covered by the baseline extent and health surveys required by condition 8 of Permit 05.01 and the frequency of follow up monitoring (currently 5 yearly) under that condition. The Panel requests that Mr Deans, Ms Morrison, Dr Beard, Ms Passau and Mr King confer on the coverage (wetland types, locations, indicator species) and frequency of this baseline monitoring noting the Regional Council's request that a broader set of wetlands rather than just raupō and flax be covered, recommending any consequential changes for conditions 10 (b) Permit 05.01.	Response jointly prepared by Hamish Dean (ecologist, SLR Consulting Limited) and Grant Eccles (planner, Tonkin & Taylor Limited) <u>TIL Response:</u> Condition 8 of AUTH142035.05.01 has been amended to increase the frequency of monitoring of lake margin wetlands, as follows: 8. <i>The Consent Holder must engage a suitably qualified and experienced ecologist to undertake baseline monitoring of the extent and health of the raupo and flax wetlands on the margins of Lake Taharoa adjoining the Taharoa C Block within the months of February and March:</i> <i>(a) <u>within the first year</u> following the commencement of this consent <u>(baseline monitoring); then</u></i> <i>(b) <u>annually for the first 3 years following the baseline monitoring; then</u></i> <i>(c) <u>every 2 years for the next 6 years; then</u></i> <i>(d) <u>if adverse effects have not been detected through the monitoring required under (b) and/or (c), and every 5 years thereafter <u>for the duration of the consent.</u></u></i> <i>The outcomes of monitoring shall be provided to Waikato Regional Council.</i> In terms of the request that a broader set of wetlands be covered, the wetland type proposed to be monitored was stated as raupō-flax wetland because that is the dominant type, and for large areas the only type of wetland on the margins of the lake. These wetlands will be monitored as an indicator, as these are the sites that are accessible from TIL land, but the reference to these specific wetland types is proposed to be deleted from Condition 8 (as shown above).
18	New conditions	Experts agreed on maximum consent envelope approach as proposed by Philip Kelsey. For party review, draft principal conditions relating to the maximum consented envelope of effects approach are provided as follows for comment: 1. The consent holder shall not drawdown groundwater within the Central and Southern Mine pits below the following levels (levels in terms of RLm Moturiki vertical datum): A. Central Mine Pit: i. Pit 1 – RLm TBA ii. Pit 2 – RLm TBA iii. Pit 3 – RLm TBA iv. Pit 4 – RLm TBA B. Southern Mine Pit: i. Pit 1 and 2 – RLm TBA ii. Pit 3 – RLm TBA iii. Extension 1 – RLm TBA iv. Extension 2 – RLm TBA v. Extension 3 – RLm TBA Extent of mine stages as presented on Figure 1 of WWLA Appendix N drawing dated 22 August 2025. (RLm stage levels to be provided by TIL.) 2. The consent holder shall not cause dewatering of ground outside of mine pit areas greater than the predicted	Response jointly prepared by Jake Scherberg (hydrogeologist, WWLA), Jon Williamson (hydrogeologist and hydrologist, WWLA) and Grant Eccles (planner, Tonkin & Taylor) <u>Conditions 1 and 2</u> In response to suggested conditions 1 and 2, and as per TIL's response to RFI 1 set out above, we acknowledge that maximum groundwater drawdown is largely controlled by the excavation depth. However, the depths of excavation modelled were indicative for effects assessment purposes and to inform the preparation of consent conditions. This (conservative) modelling has been verified by current on-site work which has demonstrated that there is no seepage from the Mitiwai Stream into Pit 1 as a result of current operations. TIL carefully monitors all of its mining activities and reports that it has never observed any seepage from either the Mitiwai Stream or the Wainui Stream when undertaking mining in groundwater. TIL intends to provide further information about these observations prior to expert conferencing on this issue. This indicates there is extremely low potential for, and magnitude of, adverse effects. On this basis, the conditions as proposed by TIL are focused on the monitoring and management of the potential effects of any drawdown that might occur rather than to what depth mining can occur. This is considered to be a more appropriate and effective response rather than restricting the activity by way of pit depth restrictions and conditioning the predicted groundwater level as per suggested condition 2. The Trigger Levels and corresponding management responses that will apply for minimum stream flow requirements (RFI 1) and wetland monitoring (RFI 6) are the most effective means of assuring that adverse effects do not occur – or, if they do occur, they are appropriately managed and mitigated. <u>Condition 3</u> Suggested condition 3 is not considered necessary. Water within a dredge pond would only become saline if groundwater that is naturally saline seeps into the pond. If water within a dredge pond is saline, provided that water is allowed to percolate back into the groundwater through the base of the pond, there will be no adverse effect because that water will eventually find its way back into the saline groundwater layer at depth. The risk of saline intrusion has only been identified with respect to excavation in Pit 1 & 2 in the Southern Block. There are no other groundwater or surface water bodies within the vicinity of the site that could be potential adversely affected by saline intrusion. As set out in Attachment G to TIL's response to comments, this is because all of the relevant surface water features are located above sea level. Any saline intrusion would only occur at a depth that is far below any freshwater features, hence will not cause an increase in salinity. The salinity of any water in the dredge ponds would only generate a potential adverse effect if the saline water is removed from the dredge pond and discharged (undiluted) at an inappropriate location where there was potential for this water to enter a freshwater body. The potential for that to occur is, however, avoided given that any entrained saline dredge pond water is pumped into settling ponds, and/or recycled numerous times through the mine process water system, which dilutes its salinity. While TIL maintains that a condition along the lines of that proposed is unnecessary, if the Panel were minded to include such a condition, it is considered that a limit of 1,000 uS/cm is neither realistic nor practical given the naturally increased salinity of groundwater within parts of the site due to the proximity to the coast. TIL's experts expressly did not agree to the imposition of a limit of 1,000 uS/cm on this basis.

RFI	Condition	Request	Response
		groundwater levels (levels in terms of RLM Moturiki vertical datum) presented on WWLA Figures A1 to A6 dated 15 July 2023. 3. The consent holder should carry out sand mining activities which maintain Electrical Conductivity of water within all mine pits at less and equal to 1,000uS/cm to control potential saline intrusion of iron sand aquifer.	

WAIKATO CATCHMENT BOARD

3 COOK STREET
P.O. BOX 4010
HAMILTON EAST

REGIONAL WATER BOARD

TELEPHONE 67-184

RIGHT IN RESPECT OF NATURAL WATER

WATER RIGHT No. 870789

It is hereby certified that Waikato Catchment Board (hereafter referred to as the Board), pursuant to section 21(3) of the Water and Soil Conservation Act 1967, has granted the right specified below to:-

New Zealand Steel Mining Limited
of Taharoa
RD 4
TE KUITI
for a period to expire 31 August 1998

DETAILS OF RIGHT

To take water from Wainui Stream
for the sole purpose of ironsand mining and processing purposes

Location of take: at or about map reference NZMS 1-N73-242000

Legal Description of land at site where
take: on property Taharoa "C" Block, Blks. I, II, Marakopa SD

Rate of 27,200 cubic metres per day

Subject to the following:-

1. Special Conditions

- (a) Water right no. 870788 shall not be exercised during the exercise of this right.
- (b) The level of Lake Taharoa shall not be drawn down below RL 8.53 m a.s.l. as a result of the exercise of this right.
- (c) The grantee shall measure the daily volume of water taken by the exercise of this right and shall forward the results to the Board at monthly intervals.

GENERAL CONDITIONS

- (a) The holder of this right shall keep such records as may reasonably be required by the board and shall if so requested supply such information to the Board.
- (b) This is subject to the Board or its servants or agents being permitted access at all reasonable times for the purpose of carrying out inspections and measurements.
- (c) This right may be cancelled by the Board by notice in writing to the holder if it is not exercised within 12 months of the date of the grant of the right.

Signed at Hamilton this **14th** day of **September** 19 **88**

*For and on behalf of
the Regional Water Board*

m & poole

For Secretary

NOTES

- (i) The holder of this right must comply with all the relevant provisions of the Water and Soil Conservation Act 1967 and any regulations made thereunder. It is the obligation of the holder of this right to comply with all statutory requirements relating to the exercise thereof.
- (ii) Only the holder of this right or his agent may operate this right and only for the purposes specifically authorised by this right.