APPLICANT RESPONSES TO RELEVANT COMMENTS FROM THE WAIKATO REGIONAL COUNCIL ON THE WAIHI NORTH PROJECT

Comments 803 - 877

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
803	Application does not largely differ from application lodged with WRC in 2022 with exception to the Services Trench Area being removed and some new borrow pits within TSF3.	-	-	-
804	The air discharge effects are consistent with what was reviewed in 2022 and Dr Caldwell has confirmed all potential sources of contaminants to air from this proposal and associated potential effects on Waihi airshed and surrounding area outside airshed have been identified in a comprehensive manner with sufficient methods and measures proposed to reduce risk of potential effects to people and environment.	Air Quality / Air Discharge	-	-
805	Dr Caldwell suggests some changes to the consent conditions associated with air discharges which have been provided to the applicant. (a) Suggested amendment to the condition (ALL.A.3) specifying the boundaries of the subject property "shown as Area's 1,2,3,5,6 and 7 of Attachment 1(Waihi North Project Areas) in Schedule 1" and specifying in ALL.A.4 that in addition to properties or sites owned by the Consent Holder or a related company and "exclusively occupied by the consent holder or leased and exclusively occupied by the consent holder" (b) Notes a referencing error in the Conditions which should instead reference C1(i). (c) Suggests the conditions reference within ALL.A.24 the type of monitoring instruments, installation, calibration and maintenance and it be specified that the monitoring instrument be a nephelometer configured to record concentrations in µg/m^3 and it should have a heated inlet to minimize interference from humidity on measured dust concentrations.	Air Quality / Air Discharge	-	(a) has been amended in the conditions. (b) has been amended in the conditions. (c) has been amended in the conditions.
806	The Assessment by Civil and Environmental Engineering and Geologist input to WRC on the Gladstone Pit, Tailings Surface Facilities (TSF3), Northern Rock Stack (NRS) and Willows Road Rock Stacks (WRRS) states the documentation is consistent with the expectations for a Fast Track application.	Geotechnical / Civil Engineering	-	-
807	Matters have been identified that require clarification, however WRC notes that these relate to the final design of the Gladstone Pit which is provided for via the certification and management plan processes proposed.	Geotechnical / Civil Engineering	-	Acknowledged. As stated, further detail of the final design of Gladstone Pit will be provided as part of the detailed design stage of the process and the associated certification and management plan provisions.
808	Issues pertinent to outstanding aspects of TSF3 can be addressed as part of the detailed design phase which OGNZL already proposes will be peer reviewed.	Geotechnical / Civil Engineering	Condition SC7.H.35	Acknowledged. As stated, TSF3 matters are to be addressed as part of the detailed design stage of the process, and peer reviewed under the provisions of Condition SC7.H.35.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
	WRC note there are no aspects of this part of the proposal that require any further comment.			
834	Review comments associated with TSF3 relate to: (a) Storage 3 will need to comply with the regulations of The Building (Dam Safety) Regulations 2022 which took effect May 2024 but this will not affect the proposed design or construction. (b) A peer review of detailed design is recommended by NZDSG and will be required for building consent with the Peer Review Panel also to undertake independent review of the design. (c) It is noted that draft consents require peer review of all detailed design documentation for the WNP. (d) Questions the geotechnical slope stability analyses in Tables B3, B4, B5, B7 and B15 using the same geotechnical parameters and why are there a similar but overall FoS and higher seismic displacements? Geometry?	Geotechnical / Civil Engineering	-	As noted in response to Comment 808, these matters are to be addressed as part of the detailed design stage of the process, however it is noted: (a) As stated in the statement provided by Mr Trevor Matuschka, appended as **Appendix S**, TSF3 will be designed and constructed in accordance with the New Zealand Dam Safety Guidelines; (b) All detailed design documentation for the WNP will be peer reviewed as set out in the proposed conditions; (c) See response to (b) above; and (d) Geotechnical slope stability matters will be addressed in detailed design.
809	As the Northern Rock Stack does not require a building consent there needs to be resource consent conditions to ensure measures proposed by OGNZL are in place to ensure the NRS is built and maintained in accordance with design assumptions which can be addressed as part of the detailed design phase which OGNZL already proposes will be peer reviewed.	Geotechnical / Civil Engineering	-	Acknowledged. As stated, the NRS matters are to be addressed as part of the detailed design stage of the process, and peer reviewed under the provisions of Condition SC6.G.34.
835	Review comments associated with the NRS relate to: (a) Report does not reference updated National Seismic Hazard Model with slope stability analyses needing to include revised seismic coefficients for detailed design. (b) Given the ground improvement work to create a stable landform, accurate profiling and zonation and monitoring of pore water pressure it is agreed that monitoring and verification of the earthwork's construction quality is required. Noting this is covered in draft consent conditions. (c) Queries whether the Duncan (2014) fill strength relationship is appropriate for some of the proposed waste rock zones which may be variably weather and/or altered (PAF) and have high clay content and asks whether effective and total stress parameters for the fill be assigned and monitored. (d) The earthworks specification for construction of the rock stack (not yet prepared) will need to clearly define compaction requirements for various fill zones to achieve required design strengths and slope stability. (e) Will there be limitations on timing and height of fill placement staging as key to controlling fill pore water pressures and required dissipation. (f) Peer review of the detailed design is recommended.	Geotechnical / Civil Engineering	-	As noted in response to Comment 809, these matters are to be addressed as part of the detailed design stage of the process, however it is noted: (a) Refer to the response to Comment 839. (b) As noted, these matters are provided for in the proposed conditions; (c) These matters will be addressed in detailed design; (d) These matters will be addressed in detailed design; (e) These matters will be addressed in detailed design; and (f) All detailed design documentation for the WNP will be peer reviewed as set out in the proposed conditions.
836	It is noted that the potential loss of life for the Rainy-Day Breach scenario is two which has increased from one with the conclusions not changed from the previous report and requiring updating.	Geotechnical / Civil Engineering	-	Refer to statement provided by Mr Trevor Matuschka, appended as **Appendix S**.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
837	Review comments associated with the WRS note that: (a) Design interfaces will require strategically located surface and groundwater monitoring instrumentation to monitor and test assumptions, as addressed by the proposed conditions. (b) The waste rock stack will be constructed on gently to moderately inclined sloping ground – it is queried whether computer stability analyses adequately considered global slope stability scenarios in terms of potential deep seated landslide movement being induced by the waste rock stack slope surcharge load and questions whether there are any weak interfaces between underlying successive volcanic lava flow deposits. (c) Is the Duncan (2014) fill strength relationship appropriate for all the proposed rock which may be variably weathered and altered (PAF) and have relatively high clay content and if effective and total stress parameters for fill been assigned and modelled? (d) With the fill placement layer thickness of 0.5m to 5 m, does it assume design fill strength is effectively based on angle of repose friction angle only or will the fill or at least some zones require engineering compaction to achieve design strength and what staging of fill lift heights will occur to allow pore pressure dissipation. (e) The estimate of seismic hazard will have to be updated as appropriate during detailed design and should be noted as a consent condition. (f) It is requested that given no building consent is required for the WRS or Willows Collection Pond which would have poor outcomes if it were to fail, it is recommended detailed design of the WRS and Willows Collection Pond is peer reviewed prior to construction and submitted to Waikato Regional and Hauraki District Council prior to construction and is noted as a draft consent condition. (g) Risk associated with poor construction can be mitigated with appropriate verification and suitable contractor and contract engagement.	Geotechnical / Civil Engineering		These matters are to be addressed as part of the detailed design stage of the process; however, it is noted: (a) As noted, these matters are provided for in the proposed conditions; (b) These matters will be addressed in detailed design; (c) These matters will be addressed in detailed design; (d) These matters will be addressed in detailed design; (e) Refer to the response to Comment 839; (f) All detailed design documentation for the WNP will be peer reviewed as set out in the proposed conditions; (g) The Applicant does and will continue to engage contractors of a reputable standard ensuring any risks associated with poor construction will be avoided and / or minimised as far as practicable.
838	In relation to GOP it is recommended that (a) – (d) below are subject to the detailed design, peer review and consenting process: *The stability analyses show that the risk of rock mass failure with current standing water tables and 50% depressurisation is low. However, the 50 % depressurisation needs to be confirmed, and this will be accomplished by implementing the following:*	Geotechnical / Civil Engineering		Matters a – d are provided for within the provisions of Conditions such as SC5.G.12 and SC5.G.30.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
	a. *A comprehensive piezometer network around the pit to be established before mining commences, which needs to be defined as part of the Ground Control Management Plan and installed before mining commences.* b. *Planning for a comprehensive horizontal drain program in the pit.* c. *Horizontal grading of the berms (that is inclined berms) in the upper flatter sections of slope to direct rainfall runoff and any shallow seepage away from lower slopes.* d. *A staged early pit development to allow the rock mass conditions, geological structure and geology to be confirmed before commitment to final pit crest and overall design slopes.*			
833	It is stated that the application documentation provides for a piezometer network system around Gladstone Pit which is stated within PSM 2025b report at Section 12.3.5 but it is unclear where in the proposed conditions this programme of works is as it is not contained within the Groundwater Management Plan.	Geotechnical / Civil Engineering		The piezometer network system around the Gladstone Pit is provided for in Condition SC5.G.27. Specifically: a.ii) "Sets out details of an **appropriate monitoring programme**" b. "**A structural integrity surveillance and monitoring programme for the GOPTSF**" c. "**A description of the monitoring systems…**"
839	(a) All detailed design reporting should include updated seismic design analyses in accordance with NHSM (2022). (b) The potential slope instability hazard and risk for each area could be more specifically addressed in the 'Monitoring and Management Plan' although it is implicitly covered as is.	Geotechnical / Civil Engineering		(a) Conditions reflecting this have been added in relation to the Willows Rock Stack, GOPTSF, Northern Rock Stack, and TSF3. (b) As noted, this detail will be addressed in the Monitoring and Management Plan.
811	Clarification is required throughout the Conditions that 'acid rock drainage' is not restricted to rocks that generate acidity but can also include rocks that generate neutral metalliferous drainage (NMD) including rocks that are classified as PTEL (potential for trace element leaching – high mercury).	Geochemistry		This has been updated in the conditions, and references to acid rock drainage have been replaced with acid and metalliferous drainage.
812	ARD should be added to the definitions of conditions and further clarification should be provided on what ARD means (ie. ARD includes acidic drainage from PAF materials and potentially circum-neutral drainage from materials such as those classified as PTEL otherwise AMD should be used and a definition included including the risk associated with ARD and NMD.	Geochemistry		See response to Comment 811.
813	The management processes for PAF materials is discussed (capping of PAF material) however PTEL materials should be managed in a similar manner.	Geochemistry		The replacement of references to 'acid rock drainage' in Comment 811 with 'acid and metalliferous drainage' addresses this matter by way of the acid metalliferous drainage provisions in the conditions including PTEL materials.
814	Further work is required to validate classification criteria for PAF and non-acid forming (NAF) materials and column leach testing should be undertaken to validate the classification threshold that uses a neutralization potential ration	Geochemistry		It is not agreed that further classification is necessary other than in relation to WUG materials that are from mineralised rhyolitic host rocks. As discussed with WRC previously, the existing mining operations and monitoring over the past 20 years of operation show there is a high degree of confidence that the use of NPR 1 is effective at

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
	(NPR) of 1 – This work program should be certified by WRC and used to validate/refine the Waste (rock) Classification Protocol. (a) Draft Conditions (i.e., SC2.K.5 uses the incorrect NAF classification criteria). It would be more appropriate to state that the NAF materials are classified in accordance with the Waste (rock) Classification Protocol.			adequately managing PAF without further classification. The only exception to this would be WUG rock samples that are a mineralised rhyolitic host rock which is potentially different from the mineralised andesitic host rock across the existing operations. As these materials are being placed as backfill in a saturated mine backfill the long term ARD is not considered a concern. Further column leaching tests of this WUG material with NPR values between 0.5 and 0.8 is proposed. It is suggested that this be provided as part of annual reporting once relevant rhyolitic sample materials are available.
815	The sampling requirements in the draft Waste Classification Protocol are high-level and require further explanation – the updated sampling criteria can then be certified by WRC as being appropriate.	Geochemistry		Reviewing sampling criteria is an operational matter that should not be subject to regulator review. There are three factors that are currently used to derive sampling frequencies used to date at the site: 1. Characterisation by lithological unit (minimum of 25 samples per discrete unit); 2. By mass (minimum of one sample per 50,000 tonnes of waste rock); and 3. Confidence interval (95% confidential materials are adequately characterised based on the variability within the sample set). It is inadvisable to include this level of detail in the Waste Classification Protocol given the nature of the epithermal mineralisation in Waihi and the resultant variability in the alteration that results in sulphide formation.
816	It is requested that the Waste (rock) classification Protocol and Detailed Design Reports should be certified by WRC (to ensure, where required that AMD management processes are addressed).	Geochemistry		There are enough safeguards in the conditions in terms of bottom lines / limits. It is considered that the documents remain referenced as they are currently drafted to, with a defined review frequency and the ability for WRC to review them when / if they are amended.
817	Monitoring is required to confirm that oxygen is excluded from waste rock stacks which should be a consent condition unless it is contained within the management plans as elevated concentrations should be a trigger for risk-based review of material management processes and WRC requests how this matter has been covered off via condition or management plan. (a) The management of nitrogenous compounds, derived from the use of nitrogen-based explosives requires further consideration. There should be a consent condition that addresses the storage and use of nitrogen-based explosives. (b) Low permeability layers used to cap PAF materials requires further consideration. It is recommended the design criteria are included in the various management plans.	Geochemistry		Management Plan requirements will provide for periodic monitoring on an ongoing basis. Details of how this is to occur will be outlined in the Management Plans. Nitrogen and Phosphorus will be monitored on a discretionary basis. However, it is considered there is no need to include them in the Waihi North Project conditions when there are no associated limits against which the monitoring is to be assessed. The design criteria are already provided for / addressed within the Management Plans.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
818	It is requested that Proposed Consent Condition SC5.O.4 and SC6J.4 wording be clarified "Placement of selected, coarse waste rock as the initial layer on the low-permeability layer of the stockpile footprint to act as a leachate drainage layer" as the wording currently seeks to enable oxygen ingress into the facility which should be avoided to minimize risk. (a) A study should be undertaken to assess AMD sludge management options after closure of the TSF and any potential risks to the receiving environment. This study should be completed before closure.	Geochemistry		Conditions have been updated to note that "the perimeter of this drainage layer shall be designed and constructed to prevent the ingress of oxygen into the stockpile". AMD sludge management will continue in accordance with current operational practice which hasn't created any issues to date. There is enough information available from previous and existing operations to understand what is currently going on, meaning a study is not required.
840	Condition G7 – include content re storage of nitrogen-based explosives. (b) Condition G7 – include content re management plan that defines the operational processes and performance targets around ANFO storage and spill management, blast management, and nitrate-impacted material management.	Geochemistry		Updated in the conditions as requested. These matters are already covered in the vibration and blasting Management Plans. An additional Management Plan is not necessary.
841	Condition G14 – add two new clauses regarding sediment control structures management run-off from PAF materials, and associated disposal practices.	Geochemistry / ESC		These have not been added as they are not necessary as a result of G14 relating to land disturbance and works within watercourses in Areas 2, 5, 6 and 7, where the area is not subject to permanent stormwater management infrastructure (refer to condition G2). The erosion and sediment controls will only be in place to manage surface earthworks, and not be receiving runoff from any PAF materials. Permanent collection ponds will be in place prior to the first deposition of PAF onto the waste rock stack.
842	Recommendation for a new requirement to measure for Total Nitrogen in the discharge from the treatment plant and a condition restricting the mass load of nitrogen in the discharge to water consent from the treatment plant.	Geochemistry		These have not been linked in for the following reasons: • An ammonia limit is already in place. • It is not understood why there is a need to measure nitrogen when there is no associated compliance limit. • It is not understood why a catchment based limit is being set. • The 13 T limit is based on data from 2006 - 2015 and does not reflect the current mass load.
843	Condition G18 suggest that the units be added in Table 2 for Temp (^{O}C) and Criteria for Total Ammonia (g/m^{3}).	Geochemistry		Updated in the conditions as requested.
844	Condition SC1.D.10 –Suggest that a limit for pH is added to Table 1 (e.g., pH 6-9). Given this is within a stream it would seem reasonable.	Geochemistry		Updated in the conditions as requested.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
845	Condition SC2.F.7 –Suggest that an advice note be added as follows: "Characterisation of in-situ material, other than topsoil and subsoils, should be undertaken prior to the removal of materials to inform management requirements".	Geochemistry		Updated in the conditions as requested.
846	Condition SC2 F11 – suggest the following change: "Oxygen traps (goose necks or similar approved technique) …"	Geochemistry		Updated in the conditions as requested.
847	Condition SC2 F17 Monitoring – suggest including a condition be added to valid and characterise the assumptions made with respect to oxygen exclusion from the Willows Rock Stack. "During construction of the Willows Rock Stack the Consent Holder must install oxygen probes to validate design criteria and confirm that oxygen is excluded beyond 8m of the edge of the Willows Rock Stack"	Geochemistry		This has not been added as management requirements associated with oxygen levels will be included in the monitoring programme provided in the WRS Monitoring and Management Plan. The monitoring programme will reflect the requirement to limit the degree of any oxygen ingress that occurs.
848	Condition SC5.G.6 – Suggest that referencing the WQ is required to make the condition clearer if monitoring indicates the presence of sulphate in the g/w – "If monitoring indicates the presence of sulphate in the groundwater then monitoring of the groundwater quality down-gradient of any such storage pad must be undertaken and meet the limits specified in G18."	Geochemistry		Updated in the conditions as requested, with addition of "with respect to baseline sulphate levels".
849	Condition C1A – Acronyms we suggest an acronym be added for AMD Acid and Metalliferous Drainage and that Acid Rock Drainage more correctly refer to Acid Metalliferous Drainage throughout the conditions.	Geochemistry		Updated in the conditions as requested.
850	Condition C1A – RL – is the definition correct? Should it be Relative Level rather than Reduced level?	Geochemistry		Updated in the conditions as requested.
851	Condition C65 d. needs rewording and suggest the following: Applying sufficient lime to any area where potentially acid forming material is identified during validation sampling undertaken in accordance with (c) to achieve a Neutralisation Potential Ratio of 1.2 for the upper 0.6 metres of in-situ material prior to rehabilitation of the area	Geochemistry		Updated in the conditions as requested.
852	Condition C69 suggest that the reference to low permeability is further defined or provide an advice note on this matter further to state that the permeability of this layer requires further studies using a risk-based assessment.	Geochemistry		This is considered to not be necessary as it will be covered in the design detail.
853	Condition SCF27 – should include surface water in the report?	Geochemistry		The current drafting of the condition already includes surface water. The data referenced in clause a includes surface water monitoring.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
854	Condition SC2. F28 Peer Review title – please replace with **Technical Review.** Also suggest that b. ii include geochemical issues.	Geochemistry		Updated in the conditions as requested.
855	Condition SC2. J.5 d. – Suggest including the requirement to monitor for EC	Geochemistry		This has not been integrated noting that such monitoring is not currently undertaken, and it will not add any extra protection / value.
856	Condition SC2. J12 – Given the data is G18 is based on unfiltered samples – how comparable with the data be?	Geochemistry		G18 is filtered dissolved analysis, whereas the pond analysis is acid soluble. As such the two data sources are not comparable. Nonetheless, conductivity monitoring is required by this condition. Acid soluble is appropriate for surface water discharges.
819	Mr Pattle's overall assessment states that characterization of deep groundwater system in terms of flow through quantities and discharge zones is a limitation to locking down a complete conceptual model which without this fundamental aspect being understood the analysis of ensuing effects of the proposed mining activity is limited.	Hydrology	**B.27 – WWLA – Wharekirauponga Groundwater Assessment; and B.26 – GHD – Groundwater Assessment**	As detailed in application documents B.27 and B.26, whilst it is acknowledged that confirmation of throughflow qualities and discharge zones is not yet confirmed, a substantial body of work has been undertaken by technical experts to establish as detailed an understanding of these as has been possible throughout the preparation of the application. This has included the undertaking of assessments, surveys, monitoring, and other fieldwork since 2018/2019. The proposed conditions supporting the application provide for the implementation of further monitoring and management measures / actions. These will ensure that appropriate responses can and will be implemented by the Applicant as the understanding of the throughflow quantities and discharge zone parameters is strengthened, and that the conceptual model can be confirmed.
820	There is uncertainty about the potential for induced leakage from the streams into the mine once dewatering begins notwithstanding the potential for leakage may be limited identified by field detection of current existing strong vertical groundwater gradients and/or an unsaturated zone about the deep system at heads 20 m to 40 m below stream level.	Hydrology	**B.27 – WWLA – Wharekirauponga Groundwater Assessment**	A substantial body of work has been undertaken by technical experts to establish as detailed an understanding of potential for induced leakage as possible throughout the preparation of the application. This has included the undertaking of assessments, surveys, monitoring, and other fieldwork since 2018/2019. Despite fieldwork to date identifying that the potential for leakage is limited, the proposed conditions supporting the application provide for the implementation of further monitoring and management measures / actions. These will ensure that appropriate responses can and will be implemented by the Applicant as the understanding of the potential for induced leakage is strengthened. The matter of potential for induced leakage is considered further in the statement provided by Mr Christopher Simpson, appended as **Appendix G**.
821	Potential effects on wetland and riparian vegetation are still not well understood.	Hydrology and Ecology	**B.45 – WWLA – Wetland Hydrological Assessment; and B.43 – Boffa Miskell – Freshwater Ecological Assessment**	It is considered that there is an appropriate level of understanding to determine suitable management measures should any impact on wetlands and / or riparian vegetation eventuate (noting that the B.45 and B.43 assessments consider the likelihood of such impacts to be low). This level of understanding has resulted from the substantial work which has been undertaken by technical experts throughout the preparation of the application. This has included the undertaking of assessments, surveys, monitoring, and other fieldwork since 2018/2019. The proposed conditions supporting the application provide for the implementation of further monitoring and management measures / actions. These will ensure that appropriate responses can and will be implemented by the Applicant as the understanding of effects on wetlands and riparian vegetation strengthens.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
				The matter of effects on wetlands is considered further in the statement provided by Mr Christopher Simpson, appended as **Appendix G**.
822	WRC has no issues with proposed consent conditions provided by the Company dated 5th August 2025.	Hydrology	-	-
823	Dr Phillips notes there are some uncertainties regarding the potential magnitude and effects of surface flows arising from uncertainties on models on which the effects assessment has been based. Notwithstanding, any unexpected effects are likely to be addressed through the proposed baseline, ongoing monitoring and the proposed adaptive management approach.	Hydrology	-	As noted, the Applicant is seeking to manage potential effects on surface flows via ongoing monitoring and a proposed adaptive management approach. The matter of effects on surface flows is considered further in the statement provided by Mr Christopher Simpson, appended as **Appendix G**.
824, 859	Timeframes associated with working through the alert and respond trigger levels for NSWB would mean it would be at least 80 days before any mitigation is put in place should there be an effect. What will occur in the interim.	Hydrology	**H.06 – WUG Water Management Plan**	It is assumed that the 80 days referred to have been calculated by adding the 40 days for alert level reporting to the 40 days for respond level reporting. This is incorrect; the triggers don't require the Applicant to wait 80 days before mitigation is implemented. If a respond trigger level is exceeded, the investigation and mitigation would occur immediately. If an alert trigger is reached, immediate investigation is required, involving the expert panel. The consent holder is required to determine whether a response is necessary and if so, what that response should be. The panel assists to determine the appropriate action, and it is implemented in line with what is required at that particular time. The reports that are required to be submitted to WRC within 40 working days of a trigger being exceeded are intended to be after mitigation has been applied. This matter is discussed in the statement provided by Mr Tim Mulliner, appended as **Appendix E.**
825, 864	Condition UG.17 - Water quality parameters provided in relation to potential recharge of NSWB and wetlands in UG.17 are limited and instead should analyze the full suite of parameters measured in the Pump Test application – as well as analysis of the intended receiving environment quality.	Hydrology / Aquatic Ecology	-	The water quality parameters in UG17 align with conditions of existing consents held with WRC that allow groundwater discharge to natural state waterbodies. Therefore, these parameters are seen as appropriate for assessing groundwater discharge to wetlands also.
826	Dr Phillips requests clarification of where the proposed Instream Work Aquatic Ecology Management Plan is within the ELMP-WA included within consent conditions.	Aquatic Ecology	**H.02 – Waihi Area Ecology and Landscape Management Plan**	Reference to this plan is an error and instead should have been the Stream Diversion and Development Plan. The Stream Diversion and Development Plan is included in the updated ELMP-WA provided with this response.
827, 858	The assessments of effects relating to wetted widths are highly reliant on predictions regarding the effects of dewatering on the shallow aquifer and the understanding of the extent and significance of connections between the shallow aquifer and surface water bodies. Uncertainties identified in PDP's review create uncertainties in the outcomes of assessments. Uncertainties are predominantly in the area beneath the Thomspon Stream and the Teawaotemutu Stream. Boffa Miskell's report states there is merit in specific review of the monitoring data for Thompson to confirm underlying low permeability layer and the effect on predicted stream flows and ecological values – but the conditions and management plans don't provide for such monitoring.	Aquatic Ecology	-	The predictions of stream flow loss are based on a highly conservative worst-case scenario. In relation to the monitoring at Thompsons Stream, this is sufficiently captured in the monitoring regime already required by the conditions; Thompsons will be one of the long-term flow monitoring sites where level and flow data will be collected. Of note, this view is based on an outdated assessment from PDP which has been usurped by further information provided, including the pumping test. The conditions already require extensive pre and during construction monitoring of all waterways and groundwater to better understand baseline conditions and inform cause and effect relationships as tunnel construction and stopping get under way. No changes have been made to the conditions as a result of this matter.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
828, 865	It is suggested that the discharge limit for manganese in the annual monitoring data and suggests a review of this limit for the Ohinemuri River as the data within the annual report identifies the limit is not near the limit specified within the current and proposed consent conditions with a lower limit than currently authorized suggested to be considered which could be done outside of the fast-track process or alternatively Council could consider s128 review. Condition G18 – the manganese standard should be reviewed – the maximum recorded at all sites between 2020 and 2024 was 0.073 mg/l.	Aquatic Ecology	-	As noted in the updated condition comments, there is no basis for necessitating any change. The existing limit has been in place for the life of the mine, with no recorded effects on in-stream aquatic ecology.
857	What specific criterion has Boffa Miskell employed to determine an acceptable level of reduction in wetted area.	Aquatic Ecology	-	Refer to the statement provided by Mr Ian Boothroyd, appended as **Appendix P.**
860	The Respond Trigger Level is defined in WRC Condition UG.7 as the "bottom line compliance limit the activities must be managed to achieve". Given that the Respond Trigger Level is indicative of a "potential departure from known trends" is this limit sufficiently protective.	Aquatic Ecology	**H.06 – WUG Water Management Plan**	The surface water monitoring referred to in Condition UG.7 will not be undertaken alone but rather in parallel with groundwater level monitoring. Monitoring of groundwater levels adjacent to the streams (near stream piezometer pairs), as well as deeper groundwater levels within the dewatered zone is proposed to be undertaken in parallel with the surface water monitoring. It is expected that depressurisation effects propagating to the surface from deep dewatering would provide some advance warning of the effect developing prior to surface water flows being affected. It is acknowledged however, that the timeframe over which depressurisation effects would develop in the deep aquifer and then shallow aquifer before reaching surface water is uncertain. Based on responses observed in Waihi, the timeframe for such a response developing could be weeks to months. This is discussed further in the statement provided by Mr Tim Mulliner, appended as **Appendix E.**
861	With regard to potential supplementation of water via borehole pumping if dewatering effects eventuate, the success of this is reliant on a good understanding of groundwater / surface water connections and insurance of no loss of flows elsewhere in the system. Uncertainties in this space represent a potential risk of effects on water quality or ecology.	Aquatic Ecology/Groundwater	-	The baseline monitoring period will provide for the collection of sufficient information on the system to be able to assess appropriate locations where supplementation can occur from. the Applicant have existing coverage of boreholes across the catchment, giving optionality if there is a need to supplement flows.
862	With regard to potential supplementation of water with mine-intercepted groundwater, no details of treatment required have been provided.	Aquatic Ecology/Groundwater	-	This may or may not be required and the efficacy of this measure will be assessed if it is required via the expert review panel. These will be assessed on a case-by-case basis, in light of all the baseline data collected during mine development.
863	With regard to potential grouting or reinjection, there is little detail of how mitigations are to be implemented, and no associated effects assessment provided – or required by Condition UG.19(c).	Aquatic Ecology/Groundwater	-	This may or may not be required and the efficacy of this measure will be assessed if it is required via the expert review panel. These will be assessed on a case-by-case basis, in light of all the baseline data collected during mine development.
866	Condition G18 – it should be specified that the receiving environment standards relate to the Ohinemuri River and its tributaries.	Aquatic Ecology	-	Updated in the conditions as requested.
867	Condition G23 – the undertaking of early works where early ecological benefits can be obtained, should occur earlier than the proposed season immediately prior to the diversion work commencing.	Aquatic Ecology	-	As noted in the updated condition comments, the riparian planting is subject to time limits already. These have been included in the offset calculations and are considered to be sufficient. If it is practical, the Applicant will bring forward riparian planting, but this will be subject to plant availability and operational requirements and as such cannot be controlled by a condition.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
868	Condition UG.29 – has questioned if the timing of adjusting the Compliance Trigger Levels will impact the reporting requirements in Conditions UG.25 – UG.28.	Aquatic Ecology	-	As noted in the updated condition comments, an adjustment of the Compliance Trigger Levels will require a robust supporting report which would provide a summary of the matters covered by UG.25 – UG.28. The requirements of UG.25 – UG.28 will continue on the same timeframes.
869	Condition C17 – How will the Cultural Practices Plan assist OG to undertake activities in a culturally appropriate manner, and how will it be implemented in relation to the ELMP. It is suggested to link the Cultural Practices Plan into Conditions C11 and C19.	Aquatic Ecology/Cultural	-	As noted in the updated condition comments, it is not yet known what the CPP will contain, so it is not possible to say whether it's appropriate for it to be linked into the ELMP. Further, it is not appropriate for it to be certified by WRC. Condition C19 is a standalone condition and needs to remain separate - but iwi may choose to include the Cultural Awareness Programme in the Cultural Balance Plan.
829, 875	TB1 is considered to be a restored natural inland wetland and to compensate for this loss a like-for-like replacement is required elsewhere and should be supported with conditions to this effect.	Wetland Ecology	**B.43 – Boffa Miskell – Freshwater Ecological Assessment**	As detailed in Section 11.1.8 of application document B.43, it is considered that the TB1 wetland has been formed from a former silt pond that was developed as part of the construction of TSF2. The wetland feature is not considered to be a natural inland wetland, and as such the suggested compensation is not considered to be required.
870	Mataura, Gladstone and Favona wetlands while not directly adversely affected by the proposal may be affected by reduced water inflow and increased sediment input.	Wetland Ecology	-	The proposed conditions already provide for monitoring and restoration measures associated with the Mataura Wetland (Conditions SC2.F.29 – SC2.F.31) and the Gladstone Wetland (Conditions SC5.D.4 – SC5.D.5). As a result of the location of the Favona Wetland it is considered it will not be impacted by the proposed activities and as such associated conditions are not proposed.
871	Recommend that baseline ecological data be collected for Adams 8 and 9 / Adams 9 and 10 in the event of the need to offset any unanticipated adverse effects of the activity.	Wetland Ecology	-	It is noted that in one instance the response refers to Adams 8 and 9, and in another it refers to Adams 9 and 10. As Adams 9 and 10 had previously been in the application documents, it has been interpreted that this matter relates to them (and not Adams 8). As set out in the comments provided with the condition set, the Applicant has sought clarification from the wetland experts regarding which wetlands are to be monitored. It has been confirmed that nine wetlands are to be monitored, and these include Adams 9 and Adams 10. As such, these have been readded to the condition set.
872	The WUMWM Plan should be amended to ensure the control site is a suitable wetland site and allowance for this in the conditions (i.e. by removing the current control site coordinates and requiring identification of a suitable site approved by WRC).	Wetland Ecology	-	As per the comments provided with the condition set, the proposed control site is a wetland that has been selected due to its similar size, structure, composition and hydrology to those in Wharekirauponga. However, additional text has been linked into the conditions allowing for an alternative control site to be utilized with the approval of WRC.
873	Bioresearches (2025) Proposed Wharekirauponga Underground Mine Wetland Ecological Effects Assessment include sound proposals for monitoring wetlands, including ecological values. These should be incorporated into the conditions, or into the WUMWM Plan.	Wetland Ecology	**B.46 – Bioresearches – Wetland Ecology Effects Assessment; and H.06 – WUG Water Management Plan**	The Applicant accepts the suggestion for the methodology of wetland monitoring provided in application document B.46 to be covered in H.06, noting that due to the timeframes available such amendments have not yet been made to H.06.
874	Will be important to ensure that the wetland hydrology and ecology monitoring methodology is robust and approved by appropriately qualified assessors for WRC.	Wetland Ecology	-	As per the response to Comment 873, and at the request of WRC, the methodology set out by Bioresearches in B.46 will be linked into H.06. It is proposed that H.06 will be certified by the Panel as part of this application.

Comment Number	Comment	Applicant Technical Input	Where Addressed in the Application Documents	Response
876	If the TB1 site is to be modified via the creation of drains within the wetland, then it may trigger the WRC Discretionary activity Rule 3.7.4.7.	Wetland Ecology	-	Refer to response provided for Comments 829 and 875.
830	The consenting and monitoring officer for the site and planning advisor to WRC notes that the National Environmental Standards for Sources of Human Drinking Water is relevant due to the location of Waihi drinking water supply within Ohinemuri River and requires a condition to address potential discharges from Willows Rock Stack and there is currently no condition proposed to address these regulations.	Planning	-	A condition reflecting this has been added to the condition set (Condition G33). *In the event of any system failure in Area 2 that could result in adverse effects on the quality of water at the Hauraki District Council water supply extraction points (identified in the Hauraki District Council water permits), no later than 24 hours after the occurrence the Consent Holder shall notify the Hauraki District Council (as the consent holder) and Waikato Regional Council (as the consent authority) that a system failure has occurred.*
831	The company proposes to take surface water from streams and wetlands for monitoring purposes within Area 1 which has the potential to create impact on natural state waterways with limited conditions proposed. This could have unintended consequences and impact on waterways. It is more desirable that this activity is restricted to the purpose it will be used for (understood to be the supplementation of stream flows if required). The lack of detail with respect to the monitoring aspect of a proposed water take means there is no ability to assess whether allocable flows will be met or whether it is proposed to provide restrictions around the taking of the water (e.g. no take when low flows) and this requires further clarification in the consent conditions.	Planning	-	Any surface water takes for monitoring purposes will be a maximum of 2 L per sampling event and occurring at a frequency of approximately once every quarter. As such it is unlikely that such takes will impact on natural state waterways, and the proposed conditions reflect this. It appears there is some confusion surrounding an overlap of the surface water take for monitoring purposes, and the water provided for potential supplementation of stream flows. It is proposed that any supplementation will utilise bore water or mine-intercepted groundwater, should it be required, with the efficacy of this measure to be assessed if it is required via the expert review panel. The Applicant will utilise the existing and proposed ongoing monitoring data for the natural state waterways to determine and ensure allocable flows are met.
832	Condition C70 specifies Special Risk Insurance and public liability insurance is to be supplied prior to the exercise of the consents which WRC is supportive of. It is understood that Industrial and Special Risk Insurance is not available as a standalone insurance or if available is covered under another type of insurance. So reference to this specific insurance may need to be flexible. Further, the insurance landscape may change over time, and therefor the wording “at least” should be included to ensure insurances can be increased should the activities at the site and any CPI increase warrant such in increase.	Insurance	-	The conditions, as drafted, provide for the current insurance landscape. Any amendments to the insurance required will be applied for using Section 127 change of consent condition applications.
877	I note that Martha Trust Deed does not provide for taking over the NRS, GOP, new TSF3 as proposed by the company and this requires a change to Martha Trust Deed before this can occur.	Trust	-	Refer to the legal submission provided by Mr Stephen Christensen, provided in **Part A** of the response package.