Answers to Panel Questions for Authors of Incorporation Evidence

Paragraph	Question
Hokowhituatu Duncan Cormac McKenzie	
3.3	***Q**: Of the proposed 140 to 160 new residential lots in the northern subdivision, how many will be made available to descendants of the original owners?* **A**: We are not reserving any lots for the shareholders but they are all able to purchase or lease any depending on the way we market them. This has always been the policy of the Incorporation right from the commencement of the subdivision on the Southern side, and several descendants of the original owners have taken advantage of the opportunity. We hope that there will be a number of leasehold sections that will be less expensive for the shareholders but which will give the Incorporation an ongoing income**.**
3.6	***Q:** In your evidence you outline that the development of the Northern side is key for shareholders to realise a return on the investments made in previous years, yet the number of sections proposed falls short of those proposed in the original development. Do you see this as an issue in realising your aspirations?* **A:** I am not sure that I understand this question. The Incorporation's original Concept Plan expected there to be a total of 360 sections at Whareroa (ie south side and north side combined). All of the stages, both to the south and the north of the Whareroa Stream were always planned for. We have completed the southern side (about 200 sections) and the northern side of about 160 lots will make up that planned total.
5.3	***Q:** Are you able to expand on why Whareroa Station is still dependent on the completion of the northern subdivision for its future sustainability and economic progress?* **A:** The farm has needed a lot of investment over the years because of the huge debt we faced when we first got the land back. The Crown essentially returned the land as it was. There was some development debt but very little physical development other than grassing, some fencing and the necessary buildings, had been done. The owners then had to find the money to put in the rest of the farm infrastructure that was needed and to finance stock and running expenses. Those costs were huge and as Maori landowners we didn't have the same access to finance. The development of the existing Whareroa village helped but that also needed a lot of money. We had to put in the road from the State Highway and all the infrastructure. Recently the Station has sold some of its Nitrogen Discharge Allowances (NDAs) but we have kept the NDAs associated with the land within the development site. We have also diversified into Manuka for bee keeping as that doesn't need a nitrogen allowance. The Incorporation invested money into the Station following the earlier subdivision and now the Station has to assist with funding this Plan Change application. We are not wealthy developers and we rely on the assets that we have to fund our projects. We are very worried that the Council will keep asking us to do and redo more expert reports. We had an archaeologist report when we applied for the plan change but Council got its own expert. He didn't find anything more than our original experts but we had to pay that cost and the cost of a new archaeologist, Ms Keith. At least she found out new information even if it did confirm that our land is unlikely to be significant as a former historic site. We never thought we would have to get our own economist to justify the application. Council had identified this a growth cell and invited applications for plan change. Why do that if they were just

Paragraph	Question
	going to say it was wrong? We knew we had to do a plan change to get the land back to residential zoning, however we thought we were starting from a position where it was agreed that in principle this was land where some housing can happen. That is what the Structure Plan says. Never did we expect that we would need to start all over again from square one.
5.5	***Q:*** *Did you consider seeking to formalise an option for ensuring access for the road and bridge before seeking a Plan Change?* **A:** We have been talking to the Tuwharetoa Trust Board about the road for many years and I understand our advisors have also talked to council staff about the access. The Trust Board has supported our plans and has always said that the bridge and road could go over the stream. We knew the Trust Board didn't want to give up ownership because it was such a struggle to get it back from the Crown. We didn't believe it was a fundamental or irresolvable problem as described in Council evidence. The Trust Board had agreements with the Crown over the state highways and the bridges and we couldn't see a problem with having a similar agreement with council. We didn't know about the possibility of a Maori Roadway until our lawyers talked to the specialist in Crown land dealings. I have seen the invoices from Council including the invoices from Simpson Grierson. Their March invoice includes $5,899.65 (including GST) for advice over legalisation of the road and whether the Plan Change application can be refused because of access issues. I am surprised that Council and their lawyers didn't work with us to try and find a way to make this work or even find out what happens with other councils and the Crown in similar situations. I thought the Council was supposed to work with us in good faith as Treaty partners. We can't finalise any access agreement at this stage because we would need information about the bridge design and a survey of the road and bridge footprint. There is also archaeology and ecology and geotechnical work that has to be done before that design detail is available. Also we need to have the final agreement and then apply to the Maori Land Court because council has to agree to the Maori Roadway proposal. We will be applying to the Maori Land Court for the land exchange and also to create the Maori Reservations and we don't want to make a whole lot of applications. It has to be all part of the same package. We are now working with council and the Trust Board to try and get the basis of an agreement over the bridge. That will hopefully give everyone some certainty about the access and what will be in the final agreement.
	Q: *Your evidence outlines a long history of discussion regarding the Whareroa Development with councils. Do you agree with Joanne Lewis's outline (paragraph 2.3 of her evidence) about why the current Taupō District Plan does not zone the Whareroa North area as "Residential Environment"?* **A:** This has been frustrating because we had agreements with the former councils. We even had agreement from Taumarunui DC for the bridge. We accept Joanne's advice that the earlier removal of our land from being residential was part of a process that applied across the district. Any undeveloped residential land got rezoned as Rural. That also happened to a lot of land around Turangi. I do think this was particularly harsh on Maori landowners. Many of the hapu, like us had proposals to develop part of their land so that they could provide some financial return to their many owners. However most Maori landowners are not wealthy professional developers and we don't have the same access to finance. So there was probably more Maori owned residential land that got rezoned as rural, especially at the southern and western sides of the lake.

Paragraph	Question
	Q: *We have been presented with expert evidence from various witnesses who discuss the 'uniqueness' of the proposed Whareroa North development, as well as evidence which weighs the economic benefits to the wider Taupo community. Can you describe your cultural perspective of 'uniqueness' as well as any cultural benefit economic or otherwise?* **A:** What is unique, is that the original Committee of Management determined that the only option they had at the time to pay off the Governmental Development Debt over the land, was the creation of the Whareroa Village settlement. In doing so, they saw a an opportunity, to not only retain their lands, but the opportunity to clear debt, and improve the long term wellbeing of their whanau and shareholders. They also saw an opportunity to open up to the NZ public an opportunity to invest in a rare lakeshore settlement on New Zealand's iconic Lake Taupo. The subdivision decision was bold but justified in the eyes of the shareholders, as it was the only realistic option they had to clear the debt they incurred from getting the land back after the government's Land Development Scheme. This development is the way that our owners can get a house on their land. Some will hopefully be able to afford the leasehold sections and they can build a house with their families. That is part of its uniqueness. It is our ancestral land. It was also different from investing in exotic forests, that locked up large areas of land for forestry purposes. The northern part of the subdivision is "the icing on the cake" for Hauhungaroa No 6. It would provide completion of the Whareroa Lakeshore Settlement and it would satisfy the dreams and aspirations of our people who have gone, and those yet to come. It would, in fact provide the satisfactory completion of past dreams, and open up future possibilities for our people as New Zealanders into the future. A positive decision on this Private Plan Change in favour of the Proponents will deliver positive outcomes, socially and economically for our people, and New Zealanders as a whole. COVID.19 has shown that the world in the future is likely to change. I believe we will need to be more forward thinking about how we can get on together in the future working together positively and not having to be bound by rules or regulations, that restrict the social and economic wellbeing of all our people. We also keep a kaitiaki relationship with our land. Members of the Committee always attend the Annual General meeting of the Association held at Easter each year, and also in the other activities that the Association holds over the Christmas holidays. I don't know any other subdivisions where the developers do that after the sections are sold. Whareroa is not the same as other residential parts of the district. It is a quiet and beautiful village with lots of historical connection all around. It is close to our marae and is the way we can provide some financial security for ongoing projects to benefit our hapu.
	Q: *The proposed access road requires future resource consents which we understand would be collectively assessed as a 'discretionary activity".* *If consents for the access road were to be declined would the Incorporation then consider alternative vehicular access arrangements?* *In that situation would the Incorporation still look to run wastewater and potable water supply pipes up to the plateau from their current termination point at Whareroa Road where it currently terminates at Poriwira Drive?*

Paragraph	Question
	A: There are really no other options for the road and bridge. We have had our advisors look at this several times, including Mike Keys just a few years ago. To go around would just cost too much in roading and would create a second and separate village. That was never the vision of our earlier Committee and it is not our vision now. We always saw this northern part as the final section of the existing village. That's why Poriwira Drive finishes where it does and there is already land for the connection to the bridge and new road which we vested in Council as part of the last stages of the southern side of the subdivision.. We would need to build a second footbridge to provide that connection even without the road bridge and that is not financially possible. We don't see any problem with getting the pipes and services across the stream. We have talked about that with the Tuwharetoa Trust Board and they support our proposals and have told Council that.
	Q: *In your Attachment B (paragraph 15 of the letter from Harkness Henry dated 20 April 2020) it states "The Incorporation intends to ask the MLC to approve a land exchange between its farm holding and the area of SNA that will be protected and is currently within the 6A Block".* *Can you explain the purpose of this land exchange?* *Is it related to the this connected to the potential 20 hectares for biodiversity offsetting outlined in paragraph 8.14 of the evidence of Chris Wedding?* **A**: I have asked Merilyn Connolly to answer this question as she has a better understanding of the history with the SNA and processes with the Maori Land Court. **[Answer from Merilyn Conolly]** We have included some of the land in the Station as part of the plan change to make up for what we gave up in the SNA. We will apply to the MLC to exchange a larger block of land so that we end up with a greater total in the Station's holding and that land is intended to become Maori Reservation to protect the vegetation. Regarding the 20ha, we do not expect to have to provide the whole 20 hectares for replanting to make up for the road and bridge (because that is probably less than a 2 hectare area). The areas totalling about 20ha area have been identified by our ecologist as suitable, and so we can be very confident that we have access to land for offset planting. The actual area required will be determined through the subdivision process. Any areas of offset planting alongside or within the SNA going into the Whareroa Station will also be included in the Maori Reservation and will be part of that exchange parcel. The application to the MLC will deal with the exchange and the Maori Reservation and the Maori Roadway.
Merilyn Connolly	
3.14	***Q:*** *Can you outline in more detail how the SNA provisions introduced on the eastern portion of the area on the Northern side in 2008 impacted on the Proprietors of Hauhungaroa No. 6?* **A:** When the district plan SNA areas were notified they covered a great deal more of our development land and we were successful in having it reduced. That cost the Incorporation more money in expert and legal costs. There was almost no land left where we could do any development and that is what we were promised so many years ago. That is why we have gone to the west into the Station land.

Paragraph	Question
	Our ecologist, planner and lawyer were able to demonstrate that some of the SNA did not fit the criteria and it was removed. That is largely the area that Mr Shaw now wants more controls over. We are proposing limited vegetation clearance in that part and with some houses there as well as protected bush. The Structure Plan that is in the District Plan shows houses being built in the SNA closer to the Lake. On advice from our experts we took the houses out of the SNA and we will protect that land. We are proposing to apply for that to become Maori Reservation. The inability to have houses in that area increases our costs because it moves the houses further away and makes the roads and services more costly.
8.5	***Q:*** *Are you able to explain why the Proprietors of Hauhungaroa No. 6 intend leasing most of the sections on the Northern side?* **A:** Ideally we want to end up with an ongoing income stream that can be invested in further projects on the Station and elsewhere to benefit the owners and future generations of owners. The Incorporation has always taken a long-term view consistent with kaupapa maori. We will have to sell the first 20 sections at least in order to fund the development and we might need to sell more. It will depend on our costs at the time and what leasehold land options we have then, but initially we had expected to keep most sections as leasehold. This Plan Change application has been hugely expensive for the Incorporation. We never expected that the Council would actively oppose the application. Why include our land as a growth cell and invite a plan change application if the intention was to vigorously oppose it at every step? Council's invoices alone to the 31 March 2020 have been $67,098.69 which have already been paid, and every month we get an email demanding payment either one day or 2 days after the 20th of the month. Following the Covid lockdown in March/April we got an invoice for $67,863.33 dated 30/04/20, and received on the 5th May, saying "please pay on this Invoice by the 20th of the following month" ie the 20th May. Like everyone else the Incorporation and the Station have faced financial problems that weren't expected because of Covid. The farm couldn't send stock to the saleyards and the freezing works weren't operating at normal capacity. On top of that there has been a terrible drought. Council's invoice for May, of $57,665.64, brings the Council's costs to $192,627.66 as of 31 May 2020, and we have not even got to the hearing yet. We budgeted for a total of $500,000 plus GST believing that should be enough to fund this plan change application. We have nearly exhausted that now and it will be months or years until we can continue with the development.
Kevin Counsell - Economics	
22	***Q****: Can you describe what you find to be the "unique qualities" of Whareroa relative to other areas?* **A**: As noted at paragraph 22 of my 29 April 2020 evidence-in-chief (EIC), I do not believe that my economic expertise extends to being able to qualitatively assess the unique qualities of Whareroa. I understand, however, that other witnesses for the Proprietors of Hauhungaroa No. 6 have commented on these qualities. Having said this, I can comment on two economic aspects regarding these unique qualities. First, Whareroa is geographically distinct from all other areas in the Taupo District. To an economist, location is an element of product variety; that is, products can be differentiated from one another by virtue of their different locations in geographic space.[1] Therefore, Whareroa is at least unique from all other areas in the Taupo

[1] A textbook discussion of location models in economics can be found in Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, Fourth Edition, Pearson/Addison-Wesley, at pp.220-230.

Paragraph	Question
	District in the geographic dimension. Second, the evidence suggests that most properties in Whareroa are owned as holiday homes (see footnote 11 of my EIC). This suggests that Whareroa is unique from many (although not necessarily all) areas in the Taupo District where the properties are more likely to be owned by permanent residents. Moreover, the point made in my EIC (at paragraph 22, and the appended NERA Report at paragraphs 50-52) is that there is evidence to show that there is demand for properties in Whareroa: the sale of lots at Whareroa when they were released to the market; the sale of 6 sections per year in the last two years; and the decision by the landowners to invest in the Whareroa Development in anticipation of future demand. This evidence of demand suggests that there must be some distinguishing features of Whareroa to warrant potential buyers wanting to purchase property there.
25, 48-57	***Q:*** *Is it likely that in the absence of a unique offering at Whareroa, development at Whareroa would shift where people choose to purchase property from one area to the other?* *We understand that ratepayers are responsible for the long-term maintenance and replacement of infrastructure over all of the District, regardless of the demand and supply 'balance'. So, it could be possible that there is a net local benefit to the Incorporation from PPC36 as you state, but with an additional cost to the Taupō community for district wide infrastructure if district wide supply exceeds demand?* **A:** Regarding the first question, if Whareroa was not differentiated in any way from other areas (including on price), then it is unlikely that people would choose to purchase a property in Whareroa, so there would be no shifting from other areas. As a matter of economics, from a consumer's decision to purchase one good or service over another, it can be inferred that the consumer must experience a greater net benefit from the good/service purchased relative to that which is not purchased.[2] Therefore, if Whareroa does not provide a unique offering (which I interpret to mean Whareroa does not provide any distinguishing features relative to other areas), there will be no benefit to purchasing a property at Whareroa. Regarding the second question, I agree that there may be an additional cost to the Taupo community for the *maintenance* of the infrastructure. However, this is relatively small: the annual maintenance cost is $7,000 (as noted in my EIC at 53), relative to infrastructure costs of approximately $1.3m (Property Economics report, p.21). There may also be a lag between the time when the Whareroa Development is completed and when actual maintenance costs will need to be incurred, as that will to some extent reflect the use of the infrastructure. To the extent that maintenance costs are incurred further into the future, then they will be less in present value terms. Any additional cost to the Taupo community for the *replacement* of the infrastructure will occur far into the future (e.g., in 50+ years for many of the assets that have long lifetimes) when the infrastructure is actually replaced. Costs incurred so far out into the future are generally not included in cost benefit analysis, because of the uncertainty in forecasting so far out in time and the discounted present value of these cost being very small (see paragraph 69 of my EIC). For these reasons, I do not think it is appropriate to include these replacement costs in an assessment of the costs and benefits of the Whareroa Development.

[2] This is known in economics as "revealed preference". An undergraduate economics textbook discussion of this is provided in Robert S. Pindyck and Daniel L. Rubinfeld (2009), *Microeconomics*, Seventh Edition, Pearson International, at pp.92-94

Paragraph	Question
46, 47	***Q:*** *If demand for sites at Whareroa North seems likely to be driven by residents of places other than Taupo District (as 'holiday" properties/home), how relevant are trends /projections of TDC usually resident population?* **A:** Projections of usually resident population in the Taupo District may provide some broad context. However, given the nature of demand for sites in Whareroa North as more for holiday homes (footnote 11 of my EIC), greater weight should be placed on analysis of supply and demand in this more localised area, as noted in my EIC (at paragraph 39).
50 56	***Q:*** *At paragraph 8.5 of her evidence Merilyn Connolly states that most sections in the PPC36 northern development will be "leased rather than sold". How does this affect your analysis?* **A:** If properties in the Whareroa Development are leased, rather than sold, it is unlikely to materially affect my analysis. A key relevant principle here is that, when land is leased (rather than sold), for the lease to be acceptable to both parties, the present value of the lease payments over the life of the lease must be equal to the market value of the land.[3] Therefore, in present value terms over the life of the lease, the benefits that the Proprietors of Hauhungaroa No. 6 receive from leasing the sections in the Whareroa Development, will be the same as if they had sold those sections. Similarly, the consumer benefits to those who lease sections in the Whareroa Development will be the same as if they had purchased those sections. There may be some slight differences between these benefits in lease vs sale if the life of the lease over which these benefits are assessed is different from the timeframe over which the benefits are assessed. However, I understand that the leases will be of a relatively long term (e.g., at least 50 years), and therefore I would not expect there to be material differences so as to alter my analysis.
55	***Q:*** *Can you give some practical examples of the "consumer surplus" that might accrue to purchasers of sections in the proposed Whareroa North subdivision?* **A:** Consumer surplus represents the difference between what a consumer is willing to pay for a good or service, and what the consumer actually pays. It reflects the benefit that a consumer receives from purchasing a good or service at a price that is less than the maximum that they value that good or service at. As a practical example, suppose that a potential purchaser of a section in Whareroa North was willing to pay $600,000 for that section. This amount can be thought of as the gross benefit, in monetary terms, of the section to the potential purchaser. If the purchaser ultimately pays $500,000 for the section, then that purchase receives a net benefit of $100,000 ($600,000 willingness to pay less $500,000 actually paid). It is important to note that consumer surplus is a key element on cost benefit analysis. For example, the New Zealand Treasury's (2015) "Guide to Social Cost Benefit Analysis" incorporates changes in consumer surplus in its practical examples of how to undertake a cost benefit analysis (see Appendix 2 of that Guide). I understand also that it is incorporated in what is known in Environment Court proceedings as the "Donnelly formula", which incorporates both consumer and producer surplus in an assessment of net benefits.[4]
	Q: *NERA Report, paragraph 27:*

[3] See Glenn Boyle, Graeme Guthrie and Neil Quigley (2009), "Estimating unobservable valuation parameters for illiquid assets", *Accounting and Finance*, 49, 465-479.

[4] *Memon v Christchurch City Council*, Decision C116/2003 at [76], *Port Gore Marine Farms v Marlborough District Council* [2012] NZEnvC 72 at [200].

Paragraph	Question
	Why do you state that it is "likely that there would be a more distinct demand for properties in the southern and western Taupō"? *Are you aware of any evidence to suggest that this will be the case?* **A:** The evidence that suggests a more distinct demand for properties in southern and western Taupo, particularly in Whareroa and nearby areas such as Kuratau and Omori is as follows. First, very few of the properties in Whareroa are owned by permanent residents – with only 23 of the current 201 properties in Whareroa being permanent residents. The remaining properties are likely to be holiday homes. I reported in the NERA Report (at footnote 11) evidence that demand and supply for holiday homes can be materially more volatile than that for residential homes. There is also evidence that the characteristics (e.g., in terms of income, education, etc) of owners of second homes, and the sensitivity of their demand to changes in income, is different from that of those who only own their primary residence.[5] This suggests a more distinct demand for holiday homes than homes for permanent residents. Second, Whareroa (and nearby areas) are located a material distance from other areas in Taupo e.g., Whareroa is approximately 1 hour, 10 minutes by road to the Taupo town centre (which many other areas in the District are closer too). Given this distance, it is reasonable to expect demand for properties near Whareroa to be different from demand in areas closer to the Taupo town centre. As context, Auckland is located approximately 1 hour and 30 minutes from Hamilton, and we might similarly expect distinct demand across these two regions.
	Q: *NERA Report, paragraph 70:* *Is the potential you identify for additional rates revenue from Whareroa North dependent on construction of dwellings, or just the creation of new allotments?* **A:** The potential for additional rates revenue is not dependent on the construction of dwellings, as my understanding is that TDC receives some rates revenue on undeveloped sections, in the form of "half charges".
	Q: *What comment do you have, regarding District wide economic impacts, regarding Mr Keys' comment at 7.26 of his evidence, that "Ratepayers will see very little change because Whareroa North will be such a small portion of the total network, and in fact economies of scale, cost effectiveness and general infrastructural efficiency all have the potential to increase as a result of the expansion of Whareroa."* **A:** I agree with the first part of Mr Keys' comment, that "Ratepayers will see very little change": as set out in my EIC (at paragraphs 52-53) and also discussed above, any additional economic costs to TDC (and therefore ratepayers) relate only to the infrastructure maintenance costs, and these are relatively minor. I agree also with the second part of Mr Keys' comment, that the Whareroa North development will result in an increase in infrastructure efficiency. As discussed in my EIC (at paragraph 57), there is a benefit from the increased utilisation of spare capacity within the infrastructure that serves existing Whareroa properties. However, as also noted at that paragraph of my EIC, I have not separately incorporated this into my analysis, because it is already captured in the (lower) infrastructure costs of the Development incurred by the Proprietors.
	Q: *In your analysis what if any weight did you give to the October 2018 'refresh' of the Taupō District 2050 Growth Management Strategy (TD2050).*

[5] Gintautas Bloze and Morten Skak (2014), "Owning, letting and demanding second homes", University of Southern Denmark, Discussion Papers on Business and Economics, No. 1/2014.

Paragraph	Question
	A: TD2050 was relevant to my analysis due to the 30% figure for the average rate of vacant dwellings in the District. Beyond this, my focus was on the economic benefits and costs of the Whareroa North development, which was independent of TDC's growth management strategy as set out in TD2050.
Michael Keys - Infrastructure, roading and bridge	
7.7	***Q**: Does the "demand anticipated from Whareroa North" account for the peak demand periods that might be associated with home-owners usage over holiday periods?* **A:** Yes it does.
8.2	***Q:** Can you explain why you consider that "… determining the cost is more appropriately done once the Plan Change has been approved"?* **A:** It is agreed by TDC that the existing water supply infrastructure can be upgraded to cater for development at Whareroa North. There is a cost involved in assessing the extent of these upgrades. I believe the Incorporation should have the certainty of the appropriate zoning in the development area before embarking on this exercise. I also don't believe that these costs need to be known at this stage of the process. The Incorporation will meet them at the appropriate time. Efficiencies (and therefore cost reductions) associated with co-ordinating these works with planned future TDC upgrades will also be better defined at a later date.
8.9	***Q**:How many dwellings are there in the existing Whareroa Village that contribute to this 70kgN/year load?* *Is it correct that there are 47 vacant lots in the existing Village?* **A:** There are 200 existing lots at Whareroa and I believe that 47 of these are vacant although I haven't counted these myself. This means that approximately 150 dwellings contributed to the 2019 70kg Nitrogen. You will see from the TDC's rebuttal evidence that the 2019 figure of 70kgN was the lowest for a number of years so should not be taken as "the norm". This issue is addressed further in the JWS.
	***Q:**To your knowledge does the current potable water supply in Whareroa comply with the Drinking-water Standards for New Zealand 2005 (revised 2008)?* **A:** My understanding is that water supply authorities have been given a time frame to meet the new water quality standards. Large schemes were to meet the standards earlier, smaller schemes had more time to implement the extra treatment processes. I note from the S42A report (Swindells 24) "This upgrade is currently planned for 2025 but as the project is driven by a public health need (compliance with the DWSNZ), acceleration of this timeline is possible".
Harshad Phadnis - Geotech	
2.6	***Q**:Can you explain why you consider that the natural hazard risks within the PPC36 area of land to be used for residential dwellings are not 'intolerable', including with reference to any quantitative definitions of 'intolerable risk' that you are familiar with?* **A**: As per the Waikato Regional Policy Statement, "intolerable risk is where the risk to people, property or the environment cannot be justified". As far as I know, no quantitative definition of intolerable risk exists. All of the geo-hazards identified in my evidence are routinely encountered in and around Taupo. Widely used engineering solutions exist to mitigate all of the geo-hazards and hence, the natural hazard risks are not considered intolerable.

Paragraph	Question
6.4a	*Q:In bullet point 2 on page 3 of the Cheal letter dated 18 October 2018 (page 13 of 34 in your Appendix 6) the term "equilibrium condition" is used. Are you able to explain what "equilibrium condition" means?* **A**: [**Please note that Cheal's letter dated 18 October 2018 was authored by Andres Martinez who no longer works for Cheal. Hence, this term has been explained by Harshad Phadnis**] I consider that equilibrium condition of a feature refers to a physical state in which forces that can change the feature are considered to be balanced by strength characteristics of the feature. Some engineers generally consider that the angle of repose which is the steepest angle at which a material can stand (thus similar to an equilibrium condition) is approximately the same as the friction angle of the material which is a material characteristic tested in a laboratory. Pumiceous granular material encountered at the site usually has a high friction angle routinely ranging from 38 degrees to the low 40s. I consider that on page 3 of Cheal's letter dated 18 October 2018, the author intends to convey that the natural slope gradients on the sides of the Whareroa Stream are expected to be in equilibrium as the natural slope gradient is close to the friction angle. However, the slope has an average natural slope gradient of 16 degrees and it has been proposed that the natural slope gradient is less than the friction angle due to the effects of erosion. Based on site observations, the author concludes that erosion is anticipated to continue for at least 15m (in a backward direction) after which it is anticipated that erosion effects will not influence the bank and hence a new equilibrium condition will be reached.
12.1	*Q: Do the solutions set out in your Table take into account the cumulative effects of the potential natural hazards that you have identified?* **A**: The solutions set out in the table presented in Section 12.1 of my evidence will be designed to take into account the cumulative effects of the potential natural hazards that have been identified in the evidence.
Tony Kelly - stormwater	
No questions.	
Chris Wedding - ecology	
8.14	*Q: What area (hectares) of SNA062 would be impacted by the construction footprint of the proposed access road?* **A**: I am uncertain of the construction footprint of the proposed access road, as I understand that detailed design would provide for refinements following reporting by a suitably qualified engineer, landscape architect and ecologist. The reporting would outline how a detailed road design minimises physical intrusion into the SNA062 and OLA60 while providing a safe and suitable road connection- as per appendix 8. I understand that the permanent footprint would be 1.02 ha., with the remaining construction footprint available to be remediated with restoration. *Q: Who owns the land where you have identified 20ha of restoration and enhancement opportunities?*

Paragraph	Question
	A: I have viewed correspondence with Merilyn Connolly who has confirmed that the land where I have identified more than 20 ha for potential restoration opportunities is within the ownership of Whareroa Station and therefore any of it could be restored and protected in perpetuity as required by the requirements of a biodiversity offset.
	Q. Do you agree with William Shaw that the existing flora and fauna in the 2ha 'Area 2' (your Figure 1) triggers the significance criteria in the Waikato RPS section 11A Table 11-1? **A:** Yes. I agree with William Shaw that 'Area 2', or the area outside SNA 062 previously described as 'low scrub of bracken and shrubs' now triggers the same biodiversity significance criteria (five criteria) as the surrounding vegetation within SNA 062 on the basis that it now has canopy cover consistent with surrounding SNA vegetation and therefore would support similar habitats for flora and fauna.
Mary Monzingo - Landscape	
7.4.5 Bullet 4	*Q:How many house lots are proposed within this 2ha 'Area 2' of "regenerating scrub" as part of the Stage 1 development?* **A**: There is not a specific number of house lots proposed within the area of "regenerating scrub". *Q: Is there an indicative plan showing the proposed building platform/envelope layout for this area of "regenerating scrub"?* **A:** An indicative plan showing the proposed building platform/envelope layout for this area of "regenerating scrub" has not been prepared. It is my opinion that it is appropriate to prepare such a plan during the subdivision design stage of Stage 1. To give more certainty regarding protection of existing vegetation within this area, we are now proposing (through our rebuttal evidence) to approach this issue slightly differently - ie to amend the Concept Plan to show that an area within the "regenerating bush" along the boundary within SNA062 where: • the existing indigenous vegetation is to be retained; • additional indigenous planting, as required to achieve a suitable density of vegetation to be self-sustaining, is to be undertaken; and • that this area of vegetation will be protected in perpetuity. The remainder of the area is to be house sites. *Q:Have you specifically assessed the landscape and visual effects of having house lots in this area of "regenerating scrub"?* **A**: In my EiC I did not specifically address the landscape and visual effects of having house lots in this area of "regenerating scrub". Assessment of landscape and visual effects of having house lots in the area of "regenerating scrub" **Landscape Effects**
9.46	

Paragraph	Question
	The introduction of house lots in this area of "regenerating scrub" will likely result in the: • removal of some of the regenerating indigenous vegetation within this area; and • area along the boundary with SNA062 where of the existing vegetation is retained, additional indigenous vegetation is planted and this vegetation is protected in perpetuity. In my opinion, the above and the best practice management and restoration methods detailed in Chris Wedding's evidence will ensure adverse landscape effects will ensure the introduction of house lots in this area of "regenerating scrub" will be avoided, remedied or mitigated and net environmental landscape gain can be achieved within this area. **Visual Effects** The area of "regenerating scrub" is surrounded on the: • east and south by existing indigenous vegetation approximately 6 m to 16 m in height; • north by regenerating indigenous vegetation; and • pasture to the west. The existing indigenous vegetation on the east and south would visually screen residential development within this area from the east and south. This would result in negligible adverse visual effects when viewed from the east and south. The regenerating indigenous vegetation to the north visually screens views of the Land from the north and would result in negligible adverse visual effects when viewed from the north.
7.4.6	***Q:*** *The Whareroa North Outline Development Plan (Section 2 Key Outcome l)) proposes "a maximum building height of 8m and lesser heights in areas of the site with moderate or greater visibility from off site." How does this relate to the current TDP rules in both a residential and rural context?* **A:** The maximum building height for the Rural Environment is 10m and 8 m for the Residential Environment.
Appendix 2	***Q:****The Whareroa North Outline Development Plan (Section 2 Key Outcome l)) addresses "light spill". Can you describe what would constitute adverse "light spill" in this environment?* **A:** Adverse effects of street lighting would result from excessive levels of light that would prevent peoples enjoyment of the environment, their homes and the night sky. Light spill occurs when light falls outside the object to be luminated. In the case of streetlights it is light that falls beyond the road reserve and light in excess of the level of light necessary for road safety. Light spill can be minimised by the use of luminaires with precise optics and their location, height and aiming. The design of street lighting is not within my area of expertise but I understand there are various engineering standard regarding street lighting.
Appendix 2	*Q:The Whareroa North Outline Development Plan (Section 2 Key Outcome j)) addresses legal protection in perpetuity of indigenous vegetation. In your opinion are Consent Notices the best method for achieving the maintenance of indigenous vegetation within a residential allotment "in perpetuity"?*

Paragraph	Question
	A: I am not a consent planner, but I understand that there are a number of mechanisms for ensuring maintenance of indigenous vegetation within residential allotments in perpetuity. I understand that the use of consent notices is a common and successful way of ensuring that outcome. With consent notices the Council is responsible for any enforcement action if the landowner doesn't comply. I have asked our legal advisors who tell me that covenants can also be registered on the title of residential lots requiring indigenous vegetation to be protected in perpetuity. The subdivision consent can require the covenants as a condition of consent. Changes to the Property Law Act mean that such covenants can be granted in favour of the community as a whole and don't have to be in relation to any specific land. It is also possible to have the covenants in favour of the other lots in the subdivision which means those other landowners could enforce compliance with an application to the court. This is common. It is possible for Taupo District Council to be named as the covenantee and they could then enforce the covenant in the same way as a consent notice but there is not a lot of advantage to council over having a consent notice.
Sian Keith - Archaeology	
14	***Q**: In your opinion is an archaeological authority from HNZPT required for the upper plateau area where the house lots will be developed?* A: There is no known evidence for archaeology on the upper plateau area and no firm cause to suspect that archaeology will exist here. Therefore there is no known reason to apply for an archaeological authority to include the upper plateau. That stated, following the proposed site visit after vegetation clearance on the connecting road, if there is reasonable cause to suspect archaeology is present, or archaeology is actually visible, then a recommendation will be made to include the upper plateau in an application for an authority.
27	***Q:** What is the process for moving the recorded location of site T18/9 and redefining its nature (ie kāinga and not a pā)?* **A:** Any archaeologist who is a paid member of the database ArchSite can make these changes on-line. The changes become pending until the NZAA file-keeper approves these changes. I will personally make this change to the NZAA records through the online database (ArchSite).
Joanne Lewis - Planning	
3.1	***Q**: You note that the Executive Summary of the SSSP states that one of the key benefits of the SSSP is that "The 'market' is left to determine when demand is such that land should be re-zoned and developed rather than Council attempting to determine when more land is necessary". Apart from Whareroa North, are you aware of any other locations within the Taupō District where that currently applies?* **A**: The Southern Settlements Structure Plan (SSSP) is the only structure plan that has been prepared in relation to the residential urban growth areas identified in Section 3e of the TDP, so there are no other examples outside of that southern part of the district. The SSSP (and including the reference to a key benefit being that landowners rather than Council should decide when the market is ready for rezoning land through a private plan change request) applies to all of the areas that Part 3 of the SSSP concludes are appropriate for development. The other areas (ie apart from Whareroa) are: • Omori Future Growth Area (pages 41 to 44 of the SSSP) • Kuratau Future Growth Area (pages 44 to 47 of the SSP)

Paragraph	Question
	Both of these growth areas are depicted on the plan at page 42 of the SSSP. All of the areas identified on that plan for future residential growth at Omori and Kuratau remain undeveloped for residential purposes and zoned "Rural Environment". The Kuratau future growth area has several stages of growth provided for in it (shown on the plan as KFG1, KFG2, KLG1, KLG2).
7.6	***Q:****Notwithstanding the proposed inclusion of a dotted line "Access" route on TDP Map C29, does PPC36 seek to amend the land use zoning of the area of escarpment that the access road will traverse in any other way?* **A:** No, it does not.
7.23	***Q:****Should PPC36 be approved, but the access road does not subsequently gain consent, could the TDC then decline subdivision consent under s106(1)(c) of the RMA?* **A:** Yes, TDC could.
8.9	***Q:****Would it be more certain if the Anticipated Environmental Outcomes section stated that "… subsequent applications for resource consents must ~~should~~ also …"* **A:** Yes, that would provide greater certainty that those outcomes were secured. An amendment is accordingly proposed in my rebuttal evidence.
9.44	***Q:*** *Given that future discretionary activity (under the 'bundling' principle) resource consents are required for the proposed access road and associated bridge, why do you imply that decision-makers on PPC36 need to consider potential effects of the access road and bridge in the context of WRPS (and presumably RMA and TDP) provisions?* **A:** The TDP already contains provisions (standards, rules, policies and objectives) that would apply to any road proposal at this location – whether it be for a public road to service a residential subdivision or (hypothetically) a private road for the purpose of improved access to the eastern part of Whareroa Station. These TDP provisions are unchanged by the plan change request. An appropriate regulatory opportunity to evaluate and determine the resource management merits of a road at that location is not therefore reliant on the plan change, but rather on settled TDP provisions already in place. To that extent it should not be necessary to re-confirm the appropriateness of those provisions (in terms of, for example, the WRPS, TDP policy framework) in this current process. Largely as a result of submissions, however, it was considered appropriate to build in further certainty about the form and effects of this particular access proposal, by including in Appendix 8 numerous requirements as to outcomes, for example about ecological and landscape related effects. I expect those same requirements would likely have resulted from a future resource consent process in any event. Understanding them now provides a greater degree of certainty for submitters about the way such effects will be managed if the residential zoning is approved.
9.65	***Q****: Does PPC36 seek to rezone any land within SNA062?* **A**: No, it does not.
9.72	***Q:****Would a similar test apply to the proposed access road – namely in order to reach a finding that PPC36 should be approved, would we need to confident that there is no insurmountable statutory or policy barrier to gaining roading and infrastructure access to the area that PPC36 proposes to rezone "Residential Environment"?* **A:** Between the Proponents land and the nearest public road at this location is land owned by a third party (TMTB). Accordingly, physical road access to the Proponents' land at this location

Paragraph	Question
	requires negotiation and agreement as to a suitable legal mechanism (and securing any necessary resource consents) regardless of whether or not the rezoning is approved. As above, in terms of resource consents, the TDP provisions which provide the regulatory framework for such a consent process, remain unchanged by the plan change proposal. In that context it would be ideal, though not necessary in my view, that such an agreement and suitable mechanism was secured prior to an approval of the rezoning proposal. Risk associated with the absence of such certainty, of course, rests with the Proponents. In terms of the statutory requirement that residential lots enjoy appropriate physical and legal access, that is ensured at the time of subdivision consent through s106(1)(c) of the RMA which enables a consent authority to decline subdivision consent if "*sufficient provision has not been made for legal and physical access to each allotment to be created by the subdivision*".
9.81	***Q:*** *Does PPC36 seek to rezone any land within OLA60 or ONFL9?* **A:** No, it does not.
	Q: *Appendix 8 of the Application notes that "Electricity and telecommunication service providers have indicated that their respective systems have capacity to cater for Whareroa North." Have you received or do you intend to receive a confirmation that utility services, electricity and telecommunications reticulation extensions into Whareroa North are still viable?* **A: See Answer here by Mike Keys -** We are currently seeking an update from both Chorus and The Lines Company and hope to provide this clarification to the Panel before the Hearing.
	Q:*If PPC36 is approved, does that oblige the TDC to agree to access arrangements under an RMA process and/or Te Ture Whenua Māori, and/or a Deed potentially with Tūwharetoa Māori Trust Board, the Proponents and Council?* **A:** No, if PPC36 is approved, that would not oblige TDC (in either its consent authority role or its asset management role) to subsequently agree to access arrangements under any of the processes referred to. Many subdivisions include assets to vest in Council. When that is the case there is no obligation on Council to accept the asset until and unless it is satisfied with the legal mechanism, as well as the design and construction of the asset. That is the case also with the proposed access road (including bridge) for the Whareroa North proposal.
	Q: *If PPC36 is approved and potential natural hazards are thereafter not able to be mitigated, such that subdivision consent is not granted, is that an economic risk that falls on the Incorporation?* **A:** Yes, if the zoning is approved and a hazard is later identified which is unable to be mitigated, the risk falls on the Incorporation. It is always possible (whether land is zoned "residential" or not) that pre-subdivision geotechnical investigation results in geohazards becoming apparent. In this case, however, it is the evidence of Mr Phadnis that such geohazards are able to be mitigated.
	Q: *If PPC36 is approved, regulatory certainty regarding the avoidance, remediation or mitigation of potential adverse effects will rely on the suite of conditions able to be imposed on the subsequent subdivision consent, should that consent itself be granted.* *Do the matters of control in TDP Rule 4a.3.2 adequately and explicitly deal with all potential adverse effects of the proposed residential subdivision that have been identified in the evidence to date, including:* ▪ *Effects on indigenous biodiversity, particularly that in 'Area 2';*

Paragraph	Question
	▪ *Effects on landscape character;* ▪ *Effects on visual amenity;* ▪ *Effects on natural character;* ▪ *Effects on tangata whenua values and interests;* ▪ *Effects on archaeological features;* ▪ *Effects on existing TDC reserves and recreational facilities;* ▪ *Effects on Lake Taupo water quality;* ▪ *The ability of the wastewater and drinking water infrastructure to service the new development;* ▪ *Pedestrian and cycling access to and within the residential subdivision;* ▪ *Provision of reserve areas within the development, including the application of Crime Prevention Through Environmental Design principles; and* ▪ *Mitigating identified natural hazards risks to a level that is "acceptable" or "tolerable".* *Is there scope within submissions to amend TDP Rule 4a.3.2 to include additional matters of control to address the above range of potential adverse effects?* **A**: <u>Stage 1 – Discretionary Activity Status</u> Stage 1 includes: • the bridge and road access; • the Stage 1 residential lots (including within the regenerating area referred to as "Area 2"); • the stormwater management infrastructure (including located in the vicinity of "the bowl"); • all of the indigenous vegetation planting (ie not only within the Stage 1 area, and including offset planting vegetation). Stage 1 will have "discretionary activity" status, and accordingly any relevant and appropriate resource management condition could be applied, if required, in relation to potential effects listed above. <u>Subsequent Stages – Controlled or Restricted Discretionary Status</u> Subsequent to Stage 1, subdivision will have Controlled or Restricted Discretionary Activity status depending on compliance or not with the Whareroa North Outline Development Plan (Appendix 8). Based on evidence available, and in relation to the list of potential effects referred to in the question, it is considered that potential effects on tangata whenua and archaeological values are confined to Stage 1. Further, as the TDC Reserves Planner has confirmed that no formal park spaces are required in the area to be rezoned (EiC para 76), it is not anticipated that effects on existing TDC reserves and recreational facilities would potentially arise as a result of subsequent stages of the development. The remaining matters are: • effect on indigenous biodiversity; • effects on landscape character and visual amenity; • effects on natural character; • effects on Lake Taupo water quality; • provision of wastewater and drinking water infrastructure;

Paragraph	Question
	• provision of pedestrian and cycling access to and within the residential subdivision; • provision of reserve areas within the development, including the application of Crime Prevention Through Environmental Design principles; • mitigating identified natural hazards risks to a level that is "acceptable" or "tolerable". Some of these are within the scope of the matters of control (ie beneath TDP Rule 4a.3.2) in that natural hazard issues are provided for through matters of control (b) and (g), and infrastructure by (c). Some matters (for example landscape and natural values) are partly provided for. The scope of the matters of control could be widened to specifically accommodate additional matters and in my rebuttal evidence I propose an amendment to the plan provisions to achieve that. I consider there is scope within the submissions to include additional matters of control (to address the range of potential adverse effects), for example through submission of C Harding and others which seeks a more onerous activity status for subdivision of the land proposed to be rezoned (submission points OS6.3 and 4). Widening the scope of matters over which control is exercised in effect results in a more onerous consenting framework. That is because it widens the range of consent conditions which could potentially apply in the case of Controlled or Restricted Discretionary Activity status subdivision approvals sought for stages of the subdivision after the first stage. Scope is also potentially available through the submission of I Sutcliffe which, at submission point OS9.5 seeks appropriate thresholds and triggers for effects to be managed.
	Q:*Given that the proposed residential subdivision is in an unserviced area and it will result in a new public road, why is the subdivision consent not proposed to be assessed under existing TDP Rule 4a.3.3?* **A:** The plan change proposes that TDP Rule 4a.3.3 does not apply to subdivision at Whareroa North which is in accordance with the Whareroa North Outline Development Plan (ie Appendix 8). That is because a subdivision proposal which is accordance with Appendix 8 will, through the plan change process and through required compliance with the Whareroa North Outline Development Plan (Appendix 8), have addressed the matters that Rule 4a.3.3 is concerned with (ie wastewater, stormwater, drinking water, roading) and set out in assessment criteria (a)` to (e) beneath Rule 4a.3.3, ie: "(a) Those matters of control identified in Section 4a.3 above; (b) The impact of the resulting development on the ability of the wastewater, stormwater and drinking water infrastructure to service the new development; (c) The impact of the resulting development on the ability of the roading networks to safely and sustainably operate and service the new development; (d) Whether or not the lots will be adequately serviced for drinking water; (e) The effect that the development will have on the storm water catchment." [Note: Assessment criterion (a) above is the Controlled Activity matters of control (ie beneath Rule 4a.3.2) which will in any event apply to the Whareroa North area through new rules 4a.3.1A and 4a.3.1B as proposed.]
	Q:*Is it feasible, given the range of potential adverse effects that remain to be addressed at road access consent and subdivision consent stages, that even if PPC36 is approved the Whareroa North development might not be able to proceed?* **A:** Yes, that is always a possibility when resource consents are required to authorise a development and the activity status is such that a consent is able to be declined by the Consent Authority (for example it has discretionary activity status as would be the case for Stage 1 of the Whareroa North proposal). That is not an uncommon circumstance. The TDP Residential

Paragraph	Question
	Environment provisions already include many rules where subdivision is a restricted discretionary, discretionary, or non-complying activity and such applications for consent could therefore potentially be declined. Examples are Residential Environment subdivision rules 4a.3.3, 4a.3.4, 4a.3.5, and various subdivision rules which apply in Kinloch and Ohakuri.