

Whareroa North Proposed Plan Change 36

Expert Conferencing Agenda – Infrastructure

Date: 29th May (Transport); 3rd June (Water Supply); 3rd June (Wastewater); 4th June (Stormwater)

Venue: All Zoom

Witnesses present: 29th May, Transport, Kris Hansson & Mike Keys; 3rd June 1400hrs, Water Supply, Tom Swindells and Mike Keys; 3rd June 1530hrs, Wastewater, Michael Cordell and Mike Keys; 4th June 0915hrs, Stormwater, Roger Stokes and Mike Keys

Environment Court Practice Note:

It is confirmed that all present:

Have read the Environment Court Practice Note 2014 Code of Conduct and agree to abide by it.

And in particular:

Have read the Environment Court Practice Note 2014 in respect of Appendix 3 – Protocol for Expert Witness Conferencing and agree to abide by it.

Joint Witness Statement:

Key issues for discussion

Water Supply

- Timing of determining the costs of the necessary water supply upgrades
 - Do estimated costs for the upgrades need to be advanced prior to the Plan Change being approved? (See TS Rebuttal at [9], [14])
 - When should costs be assessed? – MK EiC at [8.2]
- Extension of water reticulation across the Whareroa Stream
 - Could the provision of utilities across the Stream be provided for in a tripartite deed between TDC, the Proponent and Tuwharetoa? (see TS rebuttal at [12])

Wastewater

- Nitrogen discharge compliance
 - Estimated nitrogen discharge of development (MC EiC at [41])
 - What is the likelihood that the consenting limit for nitrogen would be exceeded? (see MC rebuttal at [28]), MK EiC at [8.14])

- If the limit is exceeded, how could this be managed/addressed?
- What upgrades are needed to the wastewater supply system – MC Eic at [47] – [48]

- Upgrade Costs
 - Do estimated costs for the upgrades need to be advanced prior to the Plan Change being approved? (See MS Rebuttal at [29] – [30], [32]).

- Whareroa Stream Crossing
 - Could the provision of utilities across the Stream be provided for in a tripartite deed between TDC, the Proponent and Tuwharetoa? (see MC rebuttal at [31])

Stormwater

- Managing active erosion channel at the base of the primary bowl. – RS Eic at [69] – [70]

Transport/Roading

- Uncertainty re Maori Roadway and legal status of road link – MK Eic at [5.4], [10.2], JH rebuttal at [2.4]
- Is the existing capacity of the wider roading network and the local roading network sufficient to cater for the proposed development? – MK Eic at [10.3]
- Road and bridge design. What information is necessary to determine zoning? – MK Eic at [5.8], JH Rebuttal at [3.1]
- Pedestrian and cyclist access – MK Eic at [5.9], [8.18]. JH rebuttal at [3.2] – [3.10]

General

- Does geotechnical investigation need to occur before rezoning in order to give confidence that identified issues surrounding the “three waters” can be addressed? MK Eic at [2.5]

Material used/referred to: - All PPC 36 documentation to date

Agreed: -

Transport

- a) **Access** – Mr Hansson wants to see an agreement in place regarding the stream crossing and will oppose the development until that happens. Mr Keys updated Mr Hansson regarding the Zoom meeting 2 days earlier with the 3 parties and how it was intended to put together a high-level agreement before the Hearing which would give the Panel confidence that legal access for the development (acceptable to all 3 parties) was achievable. It was discussed that a form of Heads of Agreement should be in place before the Hearing to provide more certainty to council in relation to the legalisation of the access. A more detailed agreement should be put in place once design details had progressed. Mr-Hansson referred to Mr Winchester and Mr Denis Lewis submission, which will deal with the legalisation of the bridge access.
- b) **Surrounding roading network** – It was agreed that the existing roading network would adequately cater for the extra traffic from the proposed development
- c) **Timing of Bridge design** – as per a) above, bridge design will follow the plan change process
- d) **Provisions for pedestrians and cyclists** – Mr Keys advised that the approach of keeping pedestrians and cyclists off the access road had been modified. The revised concept plan attached to proposed Appendix 8 was discussed. It was agreed that the revised concept plan still lack details on pedestrian and cyclist provisions. It was also agreed that the off-road pedestrian link through the native bush would provide value for recreational pedestrians, however, that this pedestrian link is not suitable for all pedestrians and cyclists.

Providing “off road” alternative access for pedestrians and cyclists over the entire length of access road would have an unacceptable impact on the SNA. The preference now is for the shorter route shown on the new concept plan which will have less impact on the SNA. However, this off road link will still not cater for all pedestrians so safe separated provision needs to be incorporated into the whole length of the access road and bridge. The cross section of the proposed access road was discussed and it was agreed that a range of options were available. It was agreed that the access road could safely provide for all modes (motor vehicles, cyclists and pedestrians). Mr Hansson would like to see it recorded that the access road (including the bridge) will be designed with separated provision for pedestrians.

Water Supply

- a) **Timing of costing water supply upgrades** – The issue of the timing of quantifying existing infrastructure upgrade costs was discussed. It was agreed that upgrading the existing infrastructure in Whareroa to provide capacity for development at Whareroa North is obviously the most cost-effective way of providing a water supply connection for the new lots and that this is a fair cost on the Incorporation. It was also agreed that there may be opportunity to combine parts of this work with treatment upgrades planned by TDC and

thereby achieve efficiencies for both parties. As to the timing of the costings Mr Swindells referred to others for advice on this.

- b) **Extension of water reticulation across the Whareroa Stream** – Mr Keys updated Mr Swindells regarding the Zoom meeting on 27th May. Mr Swindells advised that if Mr Denis Lewis is comfortable with the legal mechanism to cross the stream with services, then he will be satisfied as well.

Wastewater

- a) **Nitrogen discharge compliance** – Mr Cordell explained the data and calculation for expected future nitrogen load from the proposed Plan Change area and explained how treatment pond performance can be expected to change over time should additional wastewater from the development be received.

Mr Cordell and Mr Keys agreed that we need to consider the full set of historical data and the changes in pond performance that will occur with additional waste volumes being received. Mr Cordell also discussed that there is an assumption that the Plan Change development would follow an occupancy pattern like that of the existing Whareroa community, and that this is the basis for the nitrogen calculation, increased occupancy could increase this nitrogen load further. However, there is enough land area available for a modest increase in occupancy. Nitrogen offset would need to be larger, but this can be managed.

Mr Keys and Mr Cordell agree that, as stated in prior evidence, the nitrogen issue is not insurmountable and that the contribution of land from the Proponent, and the nitrogen rights that come with that land, are approximately equivalent to the Plan Change share of the wastewater discharge. TDC will still have to meet its own nitrogen shortfall by WWTP upgrade or more likely nitrogen offset.

- b) **Timing of costing wastewater upgrades** – The issue of the timing of quantifying existing infrastructure upgrade costs was discussed. This included reticulation upgrades and necessary upgrades to the WWTP.

Regarding the upgrades required and the timing of cost information, Mr Keys and Mr Cordell agree this could be provided at the consenting stage when development agreements are considered. However, this approach may fall short of providing the full financial information as requested by Mr. Bonis and therefore the provision of this information is to satisfy the needs of Council to assess the Plan Change rather than specifically to inform wastewater planning.

- c) **Extension of wastewater reticulation across the Whareroa Stream** – Mr Keys updated Mr Cordell regarding the Zoom meeting on 27th May. Mr Cordell now understands that a legal mechanism, to allow for road and services, is being explored by the Proponent, TMTB and TDC. Mr Cordell is comfortable that the outcome of this agreement, should one be reached, will address the issue of wastewater services extension.

Stormwater Methodology/Geotechnical Investigations

- a) It was agreed that the results of the “deep” geotechnical investigations were pivotal to deciding the road network stormwater management methodology ultimately employed for the development and that this methodology should minimise the possibility of further erosion occurring at the “scar” at the base of the “bowl” area.
- b) It was agreed that there are expected to be solutions available to achieve this objective. The distributed surface dispersal system as proposed may be replaced or have to be supplemented by other dispersal systems or as a last resort, by infrastructure capable of pumping stormwater out of the catchment feeding this sensitive area. It was agreed that slowing or halting the erosion at the “scar” was a priority and that if subsequent geotechnical investigation and analysis recommend the removal of stormwater runoff from the roading network from this “bowl” catchment, then the development should provide the appropriate infrastructure to achieve this.
- c) Mr Stokes, in his rebuttal evidence at 46 refers to the potential for the “scar” to continue fretting back into Council reserve (now proposed to be Maori Reservation). He would like to see Council absolved from any liability should the “scar” continue to regress naturally as described in Mr Martinez’s Geotechnical Report. Mr Keys advised that the Maori Reservation would be held in a Trust and believed that this detail could be discussed at a later date. Mr Stokes at this stage is seeking further clarification regarding the Trust Management Structure and would prefer to see this be “locally” based.

Undecided/Disagreed: -

Water Supply

- a) No agreement was reached as to when the cost of upgrading the existing Whareroa water supply infrastructure should be assessed.

Summary of discussion & positions on Infrastructure considerations: -

Transport

- a) **There needs to be more certainty that access is achievable**
- b) **Provision for safe pedestrian movement should be incorporated into the access road design**

Water Supply

- a) **There needs to be more certainty that servicing of the new development is achievable**
- b) **Timing of costing of necessary existing infrastructure upgrades is still to be agreed**

Wastewater

- a) The pursuit of an agreed legal mechanism to enable services to be extended across the stream and maintained as and when needed is the appropriate way forward.
- b) Costing of the necessary existing wastewater infrastructure upgrades is not needed by TDC's infrastructure team until the subdivision consenting stage, whilst recognising that this information may be required by others for economic evaluation.
- c) Should consent nitrogen limitations prove to be an issue in the fullness of time then TDC can address this by either upgrading the treatment process or using "nitrogen offsets".

Stormwater

- a) Geotechnical investigation is critical to informing the design of the stormwater management system.
- b) The stabilisation of the erosion "scar" from development effects is an important element of the final design, while accepting that natural regression may continue to some extent.

Signatures:



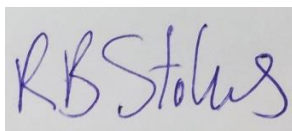
Kris Hansson



Tom Swindells



Michael Cordell



Roger Stokes



Mike Keys