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Waikato REGIONAL COUNCIL
Te Kaunihera ā Rohe o Waikato

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20 September 2021

New Zealand Transport Agency - Regional Office
PO Box 973
Waikato Mail Centre
Hamilton 3240

Attention: Mike Wood

Dear Mike

Request for Further Information under Section 92(1) of the RMA

I refer to the application received on 25 August 2021. (Application No. APP143644) for the following:

Reference Id	Activity Description
AUTH143644.01.01	Earthworks in association with SH1/SH29 Intersection Upgrade
AUTH143644.02.01	Discharge of Stormwater in association with Intersection Upgrade SH1/SH29
AUTH143644.03.01	Cleanfill Disposal in association with Intersection Upgrade SH1/SH29
AUTH143644.04.01	Diversion of an unnamed tributary in association with Section Upgrade SH1/SH29

In accordance with s92(1) of the RMA, Waikato Regional Council (WRC) requests further information in relation to the application to better understand:

- the effect(s) that the activity will have on the environment, and
- the ways in which adverse effects may be mitigated.

<u>Stormwater</u>

The following matters have been identified by James Oakley of Wainui Environmental. Mr Oakley welcomes direct discussion with him to clarify any of the matters prior to finalising your response.

1. The stormwater Assessment Report states that hydraulic modelling shows that there are only minor increases in flood depths across the project site as a result of the project and that this does not warrant the provision of peak flow attenuation. The report also presents some general discharge parameters which are applicable for the receiving environments i.e. Water Quality Treatment, no extended detention or flood attenuation, however there is no discussion of whether intermediate storm (2, 10 year ARI) management is required.

   Given the receiving environment on the eastern side of SH29 and SH1 south consisting of small ephemeral drains with multiple driveway crossings intermediate storm management would be expected to mitigate any downstream effects of the proposed intersection upgrade.

Please provide justification of why intermediate storm management is not required, specifically in this catchment. Further, please provide pre and post impervious area comparisons and peak flow comparisons at each discharge location for the 2 and 10-year ARI events.

2. Discussions with the Applicants consultants prior to lodgement confirmed a flood model report has been prepared however this was not included in the application. Please provide this flood report for review (as it may help answering several of these s92 queries). Figure 4-4 presents an increase in flood level of approximately 100mm in the general location of the 450mm culvert (culvert 2) which is proposed to be removed under SH1 North (Karapiro Leg). To mitigate the increase flooding it is proposed to undertake minor filling in land outside the designation to remove the flood effects. The report mentions if this is not suitable then alternative pipe options are available. Given the land in question hasn't been able to be accessed and no detailed survey has been undertaken of levels, there is concern that the effects of removing this culvert could be worse than presented in the report.

3. If the 450mm culvert is to be removed, please provide further detailed topographic survey to define the extent of the catchment and fall of the drains. Please also include a plan to show the extent of the fill required on the adjacent land and confirm whether permission from the landowner has been obtained for this to occur. If approval has been obtained, please provide a copy. Alternatively, please provide more detail of the alternative pipe options discussed in the report.

4. The application proposes specific stormwater devices however, it also discusses that other devices (mainly soakage) may be considered during detailed design. The application states the soakage devices will provide the same function as wetland swales i.e. treat, convey and dispose of stormwater runoff. Given as various options are proposed for stormwater management devices, please provide a table presenting required discharge parameters for each discharge location. Please note that a draft consent condition will be required to ensure the final stormwater management system achieves the discharge parameters at each discharge point.

5. Soakage is generally not suitable as a primary means of treatment for stormwater runoff due the risk of pollutants being conveyed to the underlying groundwater table. If soakage is proposed for management of runoff from carriageway surfaces, then pre-treatment of stormwater runoff will be required. Please provide detail of pre-treatment measures that will be adopted if soakage devices are utilised.

6. A 750mm culvert located on the eastern side of SH29 which discharges runoff from the farm drain to the roadside drain is proposed to be removed. Please confirm that the farm drain will continue to discharge to the proposed roadside drain/watercourse diversion i.e. confirm that removing the 750mm culvert will not prevent water discharging from the farm drain to the road drainage system.

7. The SH1 Karapiro leg has an existing water table drain on the northern side of the carriageway. Please confirm whether the existing water table drain west of the extent of works will discharge to the new swale drain (and ultimately the proposed wetland)? If so, please confirm the design catchment assumed for the swale drain and whether the wetland been sized for this catchment beyond the extent of works.

8. All stormwater treatment devices will be required to be designed in accordance with WRC Stormwater Management Guidelines 2020 (Technical report 2020/18). This is acknowledged in various parts of the Stormwater Report, although the is some ambiguity in terms of refence to other guidelines. Please ensure and explicitly confirm that the designs are based on Technical Report 2020/18.

9. An important element of wetland function is the need to maintain hydric conditions for wetland plants. Please provide a detailed description of soils analysis that will be undertaken to determine whether a liner is required for the proposed wetland and wetland swales. The WRC Stormwater Management Guidelines 2020 (Technical report 2020/18) Section 8.5.7.1 provides recommendations for soil analysis and impermeable liner design.

Ecology

The following matters have been identified by Gerry Kessels of Bluewattle Ecology. Mr Kessels welcomes direct discussion with him to clarify any of the matters prior to finalising your response. For context, the information requested in Items 10 – 14 below should be considered in conjunction with the full ecological peer review assessments attached to this letter. All matters raised in the peer review assessments must be addressed in the response.

10. No evidence or detail is provided to support the quantum or efficacy of the proposed 1:1 ratio for compensation replacement of lost habitat with 'higher quality' habitat. In our review it has been assumed that some form of planting to replace lost long-tailed habitat is what is meant by 'higher quality' habitat. Please provide further clarification of the rationale for the sufficiency of the 1:1 planting ratio.

11. The applicant's assessment of effects of aquatic ecology is generally accepted in that that adverse effects on the aquatic biota of Lake Karapiro (including the arm referred to in the application as the Unnamed River) are likely to be a Net Low after suitable mitigation is applied. Mr Kessels does not consider sufficient evidence has been presented to suggest there will be a Net Gain in ecological value as the EIA does. You are invited to comment on this if the applicant considers this to be of material significance to the overall assessment of effects of the proposal.

12. Please respond to the following questions and update the Bat Management Plan accordingly.

13. Please provide further evidence to support the assumption that the extent and type of planting and lighting proposed will be sufficient to address the loss of habitat for bats.

    Lighting should typically be no greater than 0.3 Lux and 27000 Kelvin at the boundary of key bat habitats.

    Installation of artificial bat roosts should be included in addition the proposed replacement planting, to address the time lag effects associated with loss of potential bat roost trees. Please provide detail on the extent and location of the plantings and how these will be maintained, monitored and protected over time.

14. It is accepted that the risk of discovering an occupied bat is low, but the potential effects of removal of an occupied bat roost is Very High. For that reason, it is not accepted that compensation planting of eight trees (1:8) ratio for replacement of trees for loss of occupied bat roost trees would be sufficient. Please confirm whether wording such as follows will be accepted to provide a contingency for that occurrence.

    "If it is identified that the tree containing an occupied the roost cannot be retained, then consultation should be undertaken with WRC and the Department of Conservation. The Wildlife Act s 63 (1c) indicates it would be an offence without authorisation to rob, disturb, or destroy, or have in his or her possession the nest of any absolutely protected or partially protected wildlife or of any game.

    For the removal of any trees which are or have been occupied by bats, provide details of the type of roosting and development of avoidance, remediation, mitigation and offset/compensation ratios

commiserate to the type of roost tree found (including extent of and type of planting, ratio of artificial bat boxes for each roost tree removed and ongoing maintenance and protection measures,). This shall include assessing a suitable offset or compensation measure to address the period between the loss of roost tree habitat and new roost habitat being functional provision of alternative roosting sites, including suitable indigenous or exotic trees for roost habitat, number of artificial roost boxes, their ongoing protection and management to enhance their roosting potential (for example, encouraging cavity formation, extending the planting of high quality bat habitat, translocation of roost trees or providing artificial bat houses and/or targeted animal pest control)."

Construction Water Take

15. Section 7.3.4 of the AEE states that the contractor will be required to identify construction water supply and obtain resource consent (if necessary) prior to the commencement of works. WRC does not support this deferral approach on the basis that.

    - The Waikato River above Karapiro is over allocated so there is no water readily available.
    - The Piako Catchment is also over allocated, and companies like Fonterra and Matamata Piako DC are struggling to progress their water takes consent applications currently lodged with WRC.

    Please engage with the WRC Water Allocation Team (Cameron King or Charlotte Fransen), confirm the construction water source, and identify if transfer of an existing allocation, or a new take consent is required.

    In the event that a transfer or new consent is required, please lodge an application accordingly. This requirement (if needed) is requested under s91 of the RMA.

Air Quality

The Air Quality assessment provided for pre-lodgement review was not included with the application documents. As confirmed by email (31 August 2021), WRC requires this assessment to be included in the application.

16. Please provided an updated version of the Air Quality assessment that addresses the matters raised by the WRC specialist (Peter Stacey of GHD) in his pre-lodgement review. Those matters are provided below.
    - The meteorological data used to inform the assessment is from the Lake Karapiro weather station, located ~11.5 km from the Project. While the whether station is located in relatively close proximity to the Project, GHD notes that the wind data is significantly different from data collected by the Cambridge and Hamilton stations, located further to the north. This is most likely due to the orientation of the gully/lake which the Lake Karapiro station is located within – i.e. the gully is orientated northwest to southeast which is also reflected in the direction of the prevailing winds measured by the station. Given that the Project is located outside this gully system, GHD recommends that further analysis and explanation is provided, in order to have confidence that data from the Lake Karapiro station is representative of conditions at the Project site.
    - Potentially the dust assessment may need to be updated depending on the findings from the additional justification/analysis above.
    - The appropriateness of using the Lake Karapiro meteorological data (assuming this is what is intended) to assist with the timing of activities and triggering of mitigation measures may also need to be considered depending on the findings from the additional justification/analysis above.
    - Section 4.4 presents dust trigger levels which are stated as being appropriate for use on the Project – however a requirement to undertake dust monitoring during construction has not been

included in the section 7 of the report. Please confirm if instrumental dust monitoring is proposed during the construction of the project?

- While we agree that 200 m is an appropriate distance to assess dust nuisance effects with mitigation in place, it would also be useful to also see the number of receptors located out to a distance of 500 m from the designation boundary to better understand the potential for dust nuisance if mitigation is not appropriately implemented.
- It would be helpful if Figure 5-1 could be updated to show the location of the alignment and designation boundary.
- Figure 6-1 is missing from the report.

Response Timeframe

The RMA requires that, within 15 working days of receiving this request, you must respond to Waikato Regional Council in one of three ways, as follows:

1. Provide the information requested; or
2. Advise in writing that you agree to provide the information; or
3. Advise in writing that you refuse to provide the information.

Should you agree to provide the information, please provide it by 11 October. If you cannot provide it by this date, please advise me as soon as possible and we can discuss an appropriate date

The processing of your application will be placed on hold from the date of this letter to the date of receipt of the information requested, or if you refuse to provide the information, the date of receipt of that advice.

Attachment
Peer_Review_C2P_Intersection_Ecology_Reveiw_WRC00626_Draft_160921

Yours faithfully

Michael Parsonson
Consultant Planner for Waikato Regional Council