

**To:** Aurecon **Date:** 1 October 2021  
**Attention:** Helen McLean **Ref:** 61714- 1B1  
**Subject:** **Papakura to Drury Stage 1B1 – Ecological Response to comments from the Auckland Council.**

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This memorandum responds to the ecological comments by the Auckland Council on the Papakura to Drury South State Highway 1 Improvements – Stage 1B1 (EPA reference FTC00015).

## 6. Earthworks and Streamworks

### ***Jesmond Road bridge:***

*The ecology report describes estuarine habitat at the Jesmond Road bridge as having current moderate ecological value. It is evident upon review of the ecology report, aerial imagery and google street view, that the riparian margins along the Ngakaroa Stream qualify as natural wetland upstream on the bridge, and the downstream area within the CMA would likely qualify as “connected area”. These areas would be subject to the regulations of the NESFW.*

*No assessment of works specific to that directly within / or within 10m of a natural wetland for the bridge replacement under the NESFW has been provided. It is unclear whether these works would be directly within / or within 10m of the natural wetland at this location.*

With the exception of the north-western abutment, which is proposed for remediation, there are no works within wetlands subject to the NES-F regulations associated with the Jesmond Road Bridge. Vegetation clearance has occurred and rip-rap has been placed on both embankments upstream of the bridge during the recent works for the pipe-bridge and shared path west of the bridge. Some salt-marsh vegetation on the north-western abutment will be disturbed during construction but this abutment area is proposed for remediation with the removal of the fine plastic netting covering the abutment (the remnant of the erosion control blanket), and the reestablishment of the salt marsh vegetation. Adverse effects on the small area of salt-marsh vegetation will be minor and temporary.

The NES-F wetland upstream of the bridge is comprised of occasional mangroves, and the works will not be removing these. The works will not be resulting in adverse effects on NES-F wetlands within 10m of the works area downstream or upstream of the works area. The construction footprint adjacent to the bridge is limited to a narrow corridor, to strictly limit interference with adjacent habitats.

The works will not result in complete or partial drainage of these estuarine wetlands as the hydrology of the wetland is from the large catchment and the tidal waters.

### ***Ponded area / wetland at Karaka Reserve:***

*The ponded area at Karaka reserve is described in the ecology report as forming as a result of the construction of an access track through a flow path, an example of an induced wetland. Past aeriels seem*

*to support this, where a defined channel is visible in previous aerials, where current aerials now depict a ponded wetland area.*

*The ecology report fails to assess potential value of all the freshwater resources associated with the proposal. Advice around this had been previously given at the pre-application stage. The National Policy Statement for Freshwater Management (2020) provides direction that the loss of potential value must also be considered. The ecological assessment only provides current values and as a consequence has concluded the level of effect for filling in the wetland as negligible, requiring no offset. If potential value was considered, the level of effect would likely warrant offsetting for this loss.*

The potential for the pond as a significant habitat is poor. Over the four occasions that it has been checked, including 30 September 2021, the water levels have fluctuated from completely dry to over 0.6m deep. On the most recent site visit, the majority of vegetation within the pond was dead with a layer of filamentous algae overlying the vegetation (Photo 1). The site is subject to ongoing works by Watercare and Waka Kotahi; is bounded by the railway, SH1 and the access roads to the motorway; and has been and will be subject to a high level of disturbance. The ponding has been created by the recent access track for the Watercare works and a temporary culvert. Consequently the current habitats are highly variable in both form and function and although they meet the technical definition of a wetland with the majority of the vegetation exotic pest plant species the ecological value of the vegetation was assessed under the EIANZ criteria as negligible. The potential of the site if the pest plants were cleared and vegetation was enhanced with indigenous vegetation would be low i.e. providing limited ecological value other than a local habitat for tolerant native species, with very limited connectivity to other habitats (surrounded by transport infrastructure and electrical pylons).

The construction of specified infrastructure both within and adjacent to wetlands is covered by NES-F regulation 45 as a Discretionary activity, with offset required for significant residual adverse effects on ecological functioning or biodiversity. Although there will be some adverse effects on ecological functioning, the effects are not assessed as significant, and the adverse effects on biodiversity would be negligible.

The primary matters for discretion, and that make the works discretionary, are vegetation clearance and earthworks within, or within 10m of a natural wetland; and complete or partial drainage of the wetland.

There is currently little vegetation in the pond. In dryer months it was dominated by pasture weeds and water pepper. The vegetation surrounding the site is dominated by long grasses, and pest plant species (crack willow, gorse). No significant indigenous vegetation is present or will be lost through the activity, and no significant indigenous fauna have been observed or are expected to present at the site.

The earthworks will result in the loss of the majority of the pond under the batters for the motorway onramp.



**Photo 1. Karaka Reserve pond / wetland and surrounding vegetation (30 September 2021).**

**Extension of culverts 14D, 14E & 14F** *The ecology report concludes that the culvert extensions will be over existing consented rip-rap areas of up to 15m and therefore these sections provide negligible value based on a 'rip-rap rock-lined environment and therefore an overall low or very low level of effect.*

*The report notes total proposed rip-rap lengths varying between 15.6-19.2m are proposed for each extension. I read this as each culvert will be extended by 15m (over consented rip-rap areas) and then further rip-rap will be placed within the stream varying 15.6-19.2m. The total impact area for each stream would be approximately 30-34m. However, it is not entirely clear.*

*The cumulative effects of the proposed rip/rap and extension are not assessed. The ecology report states that stream with rip-rap has negligible value when assessing the impact of the culvert extension. However, when proposing to line the sections of stream downstream of the extension with 15-19.2m of rip-rap and potentially degrading that section of stream to negligible value, the loss has not been assessed. The potential value of the stream should be considered (as discussed above) when making this assessment and this could result in a moderate level of effect and warrant offsetting.*

The assessment was clear in stating that the baseline for the assessment of effects was the consented works for Stage 1A. Table 3-6 in the freshwater ecology section stated the lengths of the culvert extensions for the Shared Path and the rip-rap required for erosion control. The ecology section provided an assessment of ecological effects in accordance with the EIANZ criteria and assessed the level of ecological effect at each of these culverts to be Very Low, based on the consented baseline of the extension of the culverts over rip-rap, and the total lack of ecological connectivity within the fully piped networks upstream of the sites. The cumulative effect of the small extensions was also addressed in the effects section of the ecology report.

Offsetting is defined in the Auckland Unitary plan as: *An offset is an action to compensate significant residual adverse effects on ecological functioning or biodiversity arising from subdivision, use or development.* The short extensions of the three pipes were not assessed as having significant residual adverse effects on ecological function or biodiversity, and therefore with appropriate mitigation through fish recovery and riparian planting, did not require offsetting. The assessment was consistent with the effects assessment, and an on an almost identical scale and magnitude, that was recently consented by Auckland Council for the Stage 1A of the project. That consent did not require offsetting.

### ***Streamworks and Earthworks Conclusion***

The only sites with natural wetlands, subject to Regulations 45 - 47 are in the vicinity of Jesmond Bridge discussed above, and the Karaka Reserve wetland, also discussed above.

### ***7. Ecology***

The section 7 Ecology comments regarding the NES-F, mitigation and offset have been properly addressed earlier in this memorandum and assessed against the comprehensive EIANZ criteria within the AEE. The resulting level of effects was assessed as Very Low or Low for the aquatic habitats, with appropriate mitigation of effects, consequently offset has not been recommended. The Lizard Management Plan was recommended in the ecology report, but should be in line with Auckland Councils standard LMP conditions. A condition for vegetation clearance and the management of nesting native birds; and a planting plan for the riparian and coastal/estuarine vegetation restoration/remediation are appropriate. These will be addressed in the planning response that consideration will be given to appropriate amendments to the condition set.

Yours sincerely  
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