Memorandum

Bioresearches
A Babbage Company

Attention: Amber Tsang **Date:** 28 March 2019

From: Chris Wedding
Project: 61729 Grey Lynn Tunnel
Subject: S92 Request

Bioresearches has been engaged by Watercare to provide technical assistance in ecology matters for the Grey Lynn Tunnel Project. The following information has been requested by Auckland Council, under S92 of the Resource Management Act.

Ecological Effects – Eru Nathan

RC32 *Please provide specialist ecological comment on any expected terrestrial or freshwater ecological effects associated with the expected groundwater changes as outlined in the Groundwater Effects Assessment, including if necessary any avoidance, remediation or mitigation for these effects.*

This request relates to E7.8.1(6)(a)(xi) – the groundwater report (in table 1, pg. 5) says that these matters will be addressed in the ecology report but no comments related to this matter are found in that report.

In my response to this clarification question, I have relied on my technical assessment of the Project's ecological values and the information contained within the Groundwater Effects Assessment, prepared by Williamson Water & Land Advisory.

The ecological values identified in the Ecology Report pertain to vegetation and fauna habitat and are considered to be low (S 6.1, Bioresearches 2019). In particular, the vegetation within and surrounding the Project area (including at St. Paul's College) is almost exclusively exotic and amenity value, and is not subject to a Significant Ecological Area overlay under the AUP. This vegetation, being predominantly weedy and including very few native pioneer species, is very robust and adaptable to a very wide range of conditions. There are no watercourses within the Project area and no stream works is proposed.

The Groundwater Effects Assessment predicts a reduction of 0.6 m^3/day (0.28% of base flow) for Cox's Creek. This predicted reduction in stream baseflow is considered to be less than minor from a Groundwater Effects perspective. Cox's Creek is a large, permanent watercourse and from an ecological perspective, this predicted reduction (less than 3%) is considered to have less than minor effects on freshwater ecology values.

No adverse effects are predicted on Lake levels at Western Springs or Motions Creek. As such, there would be no adverse ecological effects.

I concur with the recommendations for Groundwater Monitoring and Reporting (S 7.2 of the Groundwater Effects Assessment) which provide for management decisions for preventative action should monitoring identify a greater magnitude of effect than predicted by the Groundwater Effects Assessment.

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