Omāroro Reservoir Notice of Requirement for alterations to Designation

Response to submissions received

This memorandum responds to the letters received from Mary Hutchinson (Papawai Stream Group), John Bishop (Friends of Wellington Town Belt) and Frank Cook, following the presentation to the Community Reference Group and CRG review of the draft application documents for a Notice of Requirement for the alteration of the Designation for the Omāroro Reservoir.

This memorandum addresses queries relating to the requirement for emergency access and consideration of alternative access arrangements, and the assessment methodology and potential effects resulting from the proposed relocation of the existing stormwater inlet on the Waitangi Stream tributary,

1.1 Emergency Access Requirement

At the early stages of the reservoir design, the Preliminary Design Report prepared by CH2M Beca Ltd gave high level consideration to access for both regular reservoir maintenance and in an emergency. The preliminary structural design work allowed for access inside the reservoir through the reservoir floor via the tunnel structure and also via access hatches into the reservoir roof. These access points provided for low-level internal inspection and cleaning, which would generally be undertaken from reservoir floor level.

Following the issue of the Designation and Town Belt Licence, further design work has been undertaken in conjunction with the operational leads within Wellington Water. The further design effort has included consideration as to the need for post-earthquake inspection and maintenance (as part of creating a resilient asset that can be quickly made fully operational following an event, as required under the Designation conditions). These activities may need to occur at a high-level, such as inspection of the underside of the roof. This work has identified a requirement for vehicle and crane access to the roof level of the reservoir to enable lowering of equipment, such as mobile-elevated work platforms (scissor lifts), which are too large to fit through the roof and tunnel hatches. This will be achieved through a ‘soft spot’ in the roof construction which could be broken out in the future if necessary. Break-out of the roof soft spot would compromise the waterproofing layer and hence it is envisaged such activities would be for emergency response only and occur very irregularly, if ever.

1.2 Helicopter Access

Alternative solutions for truck/crane access have been considered, including access from Rolleston Street and helicopter access. As set out in the Draft Assessment of Environmental Effects, access via Rolleston Street would result in a significant visual effect, being a permanent feature on the visible north eastern face of the reservoir which would also restrict the nature and extent of planting in this area.

Access via helicopter has been considered, however the helicopters available to hire in the Wellington regional generally have a weight capacity limit of under 1 tonne, which is too low to accommodate the equipment required for emergency maintenance (for example, a 12m reach scissor lift is approx 2.8 tonnes). We therefore believe that access via helicopter is not a viable option.

We therefore consider that access via Dorking Road is preferred as it involves less intrusive work within the Town Belt.

1.3 Waitangi Stream Tributary

Following consultation with CRG, WCC and GWRC, further consideration has been given to the ecological effects and offsetting for the relocation of the stormwater inlet and the loss of 3m of daylighted stream. Boffa Miskell have revised their memo to include additional planting along 30m of stream, comprising dense native vegetation which will provide shading over the stream channel and which will, in time, reduce encroachment by *Tradescantia*. This will encourage flushing of muds and silts currently choking the stream bed, allowing gravel into the lower reaches which will create better and more complex habitat opportunities. WCC's Biodiversity Specialist has provided advice on suitable plant species and GWRC's Senior Environmental Scientist has confirmed that he is supportive of the proposed approach for additional planting.

In summary, this planting comprises:

- Carex - a single row of plants planted immediately beside the stream with 0.5m between each plant. This equates to a total of 120 plants. These grasses will overhang the waterway.
- Seral trees with bulking plants – a double row of plants with 1m between each plant. This equates to 120 plants. These small trees and large shrubs will be planted behind the Carex, to form a vegetation mass that will overtop and shade out the weeds; creating a similar environment that is found further up the stream. Close planting densities will ensure a dense canopy cover in a relatively short period. Where there is vegetation already growing in the proposed planting area, plants will be reallocated to adjoining open areas on the west bank of Waitangi Stream.
- Enrichment trees – a single row of tall growing canopy species spaced with approximately 5m between each tree will be planted amongst the Seral trees. This equates to a total of 12 trees. These slow, tall growing trees will ultimately grow through the smaller trees and shrubs to form a large canopy at upper levels and give a wider range of species for the area in the long term.

The updated Boffa Miskell memo is attached.

1.4 Ecology Assessment Methodology and Peer Review

The methodology used within the original Ecological Assessment has been discussed with GWRC's Senior Environmental Scientist, who is comfortable that the Physical Habitat Assessment method is appropriate due to the small size of the stream, and that SEV assessment would not be possible for this stream type.

With regard to the request for additional ecology peer review, we do not believe that this is required, as the pre-application ecological review process has been robust. Consultation has been undertaken with GWRC's Senior Environmental Scientist and WCC's Biodiversity Specialist, who have both reviewed the Boffa Miskell assessment and proposals.

We trust that this memorandum provides the additional information requested and addresses the queries within the letters submitted.