

Simon Mason

Infrastructure Operations Manager | Property & Infrastructure  
Queenstown Lakes District Council

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Dear Simon

**Alternative solution to Flora Dora stormwater management**

Further to your email of 12 November 2020 and in particular your request for our thoughts on the proposed solution.

To recap the primary objectives, as originally laid out by the Guardians of Lake Hāwea, are to a) reduce the risk of contaminants entering the lake b) reduce erosion of the cliff edge.

As you will be aware, prior to this matter coming to your attention the 'Thursday group' had undertaken planting north, north east and north west of the existing drain. Predominant among the plants are swamp flax. The northern plants are starting to emerge from the long grass (see Fig 1) and will make a significant contribution to the objective a), in the not too distance future. In the interim the rank grass is serving a useful filtering function. This vegetation also have dispered the water over a wider area thus reducing channelling and thus rapid erosion of the cliff edge (objective b). This has also been assisted by the digging of narrow channels running east west.



Fig 1 Looking NNW

**The area will increasingly become a pleasant natural area of native plants and thus assist wider efforts to enhance biodiversity. We consider this aspect is worth protecting and enhancing.** In that regard we see the proposed engineering solution as being: 1) 'urban' like and not appropriate for the site, 2) does not address the issue of contaminants, and 3) unnecessarily expensive.

Rather we wish to suggest a more natural solution and cheaper option, namely a semi-wetland with an exit point and socket on its northern aspect. The wetland would be created by constructing a east/west arching bund immediately south of the existing fence (see Figs 2-4). The contained area could be planted out with further wetland native plant species thus enhancing filtering effects and native biodiversity. The bund could also be planted.



Fig 2 NE aspect



Fig 3 NNE Aspect



Fig 4 NW Aspect

We look forward to a positive response to this proposal.

John Langley  
Chair Guardians of Lake Hawea  
Chair HCA Three Waters Sub-Committee