



# Habitat Restorations Aotearoa Ltd.

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## Waiora Manuherekia

### Planting proposal for O'Sullivan's (Cambrians Wetland – old coal mine)

The planting budget allows for some pockets of planting within the area, including around the historic coal pit pond, and a few pockets of planting either side of the driveway (Figure 19). The pond currently has raupō within it and some carex at its edge (Figure 20). There is a track that goes partially around the pond, and it is intended that this will be continued around the entire pond. The area around the pond can become inundated sometimes (approximately “gumboot deep”).

The side of the driveway is banked (Figure 21). Although the top of the bank is dry and has challenging growing conditions, the middle of the bank appears to be growing plants. Carex would likely be a good option at the bottom of the bank. South-west along the driveway there is some substantial carex regeneration occurring (Figure 22).

It is recommended that planting establishment along the driveway is done from the bottom of the bank, working upwards. The plants at the bottom will have more tolerance and are likely to be more successful. Their establishment will then make it easier for plants further up the bank to grow. It is recommended that planting is at 2m spacings.

The area has snow in the winter and can have high winds.

**Budget:** \$6,500

**Total plant numbers:** approximately 300 plants.

Recommended planting list:

- *Gaultheria depressa* (mountain snowberry)
- *Austroderia richardii* (toetoe)
- *Aciphylla aurea* (golden speargrass)
- *Aristotelia fruticosa* (mountain wineberry)
- *Carex secta* (pukio/sedge)
- *Carex virgata* (pukio/sedge)
- *Carmichaelia crassicaulis* (coral broom)
- *Carmichaelia petriei* (desert broom)
- *Chionochloa rigida* (snow tussock)
- *Coprosma cheesemanii* (coprosma)
- *Coprosma dumosa* (coprosma)
- *Coprosma intertexta* (coprosma)
- *Coprosma rhamnoides* (twiggy coprosma)
- *Coprosma rugosa* (needle-leaved mountain coprosma)
- *Coprosma propinqua* (mingimingi)
- *Cordyline australis* (tī kōuka/cabbage tree)
- *Corokia cotoneaster* (korokio)
- *Griselinia littoralis* (pāpāuma/broadleaf)
- *Melicytus alpinus* (porcupine shrub)
- *Olearia avicenniifolia* (mountain akeake)
- *Olearia lineata* (small-leaved tree daisy)
- *Olearia nummulariifolia* (tree daisy)
- *Olearia odorata* (scented tree daisy)
- *Ozothamnus vauvilliersii* (mountain cottonwood)
- *Phormium cookianum* (wharariki/mountain flax)
- *Phormium tenax* (harakeke/flax)
- *Plagianthus regius* (ribbonwood)
- *Podocarpus laetus* (Hall's tōtara)
- *Podocarpus totara* (tōtara)
- *Sophora microphylla* (kōwhai)
- *Veronica buechananii* (hebe)
- *Veronica salicifolia* (koromiko/hebe)

**Site preparation and planting:**

Plant guards and bamboo sticks are recommended, as is weed releasing at the time of planting for efficiency of maintenance.





Figure 19 Plan view of planting areas.



Figure 20 Photograph looking north towards the historic coal pit pond.





*Figure 21 Photograph of the western side of the driveway.*



*Figure 22 Photograph of the eastern side of the driveway, looking south towards an area of regenerating carex.*