

KEY:

- Retained Eucalyptus
- Retained Radiata
- Retained Indigenous Vegetation
- Protection Planting
- Landscape Planting
- Riparian Planting
- Fernhill Horse Trek
- Fencing



Fernhill Design Intent

Fernhill is situated east of the Pauatahanui Inlet on Fights Road.

The Fernhill revegetation design and layout scheme is to provide the following outcomes for the subdivision:

- Recreate the indigenous flora ecosystem in the gully systems that previously dominated the landscape in this area in pre-European times
- Provide bank stability and water quality for the stream
- Enhance the natural visual amenity
- Link adjacent natural gully systems

SPECIFICATION

This planting plan is to be implemented as per the Hamilton City Council Development Manual, Volume 3: Standard Technical Specifications, Part 7-Landscape Works and the Special Technical Specification as below.

SPECIAL TECHNICAL SPECIFICATION

The areas to be planted are to be cleared of all weeds or managed if bank instability and erosion is likely to occur. If spray is to be utilised, spray 4 weeks before planting commences.

Ensure that no spray enters any water course or comes into contact with native plants. Refer also to the manufacturer's instructions for full spraying specifications.

Maintain the areas after planting where new weed growth shall be spot sprayed or hand pulled. If required, trees shall be double staked with 2no. timber stakes and biodegradable flexible ties made from cloth or flax. The ties are to be positioned 1/3rd up the tree's main stem.

Plant areas that are of a slope less than 1:3 gradient and are not directly adjacent to the any water course shall ideally be mulched with 50mm depth wood chip bark with 25mm around the stem of the plant. Plant areas on a slope steeper than 1:3 and or directly adjacent to any water course will need to be maintained by hand wrenching, spot spraying or with biodegradable fabric rounds around the base of the plant to control weed species. These fabric rounds are to be installed as per the manufacturer's instructions.

Ensure Carex species are planted 1.0 metre apart from each other and other vegetation.

Ensure Carex species are planted in groupings of 8 or more of the same species.

Ensure Kahikatea are planted in 'light wells'.

Ensure that the large tree species are planted 5-8 metres apart from each other and 1-1.5 metres apart from other vegetation.

All other species are to be planted 1-1.5 metres apart from each other and other vegetation. Plant species at allocated spacing and where necessary, in between existing vegetation.

Ensure that all low growing species are planted at a 0.5 metre minimum from the walkway and larger species are planted at a 3.0 metre minimum.

Temporary fences shall be installed around mass planted areas to exclude pedestrians and animals.

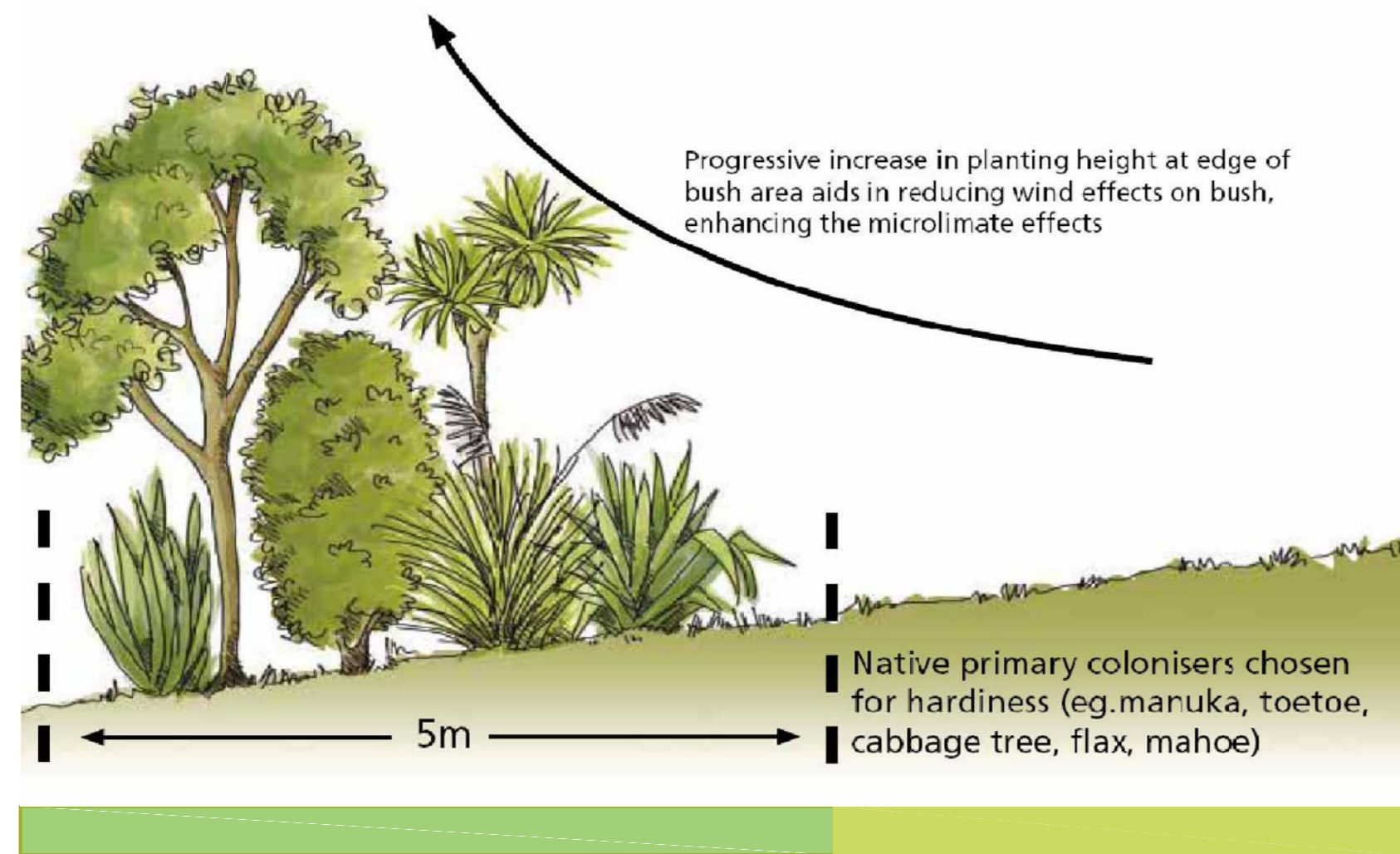
Plants are to be eco-sourced where possible.

Ensure all plants are watered at the time of planting.

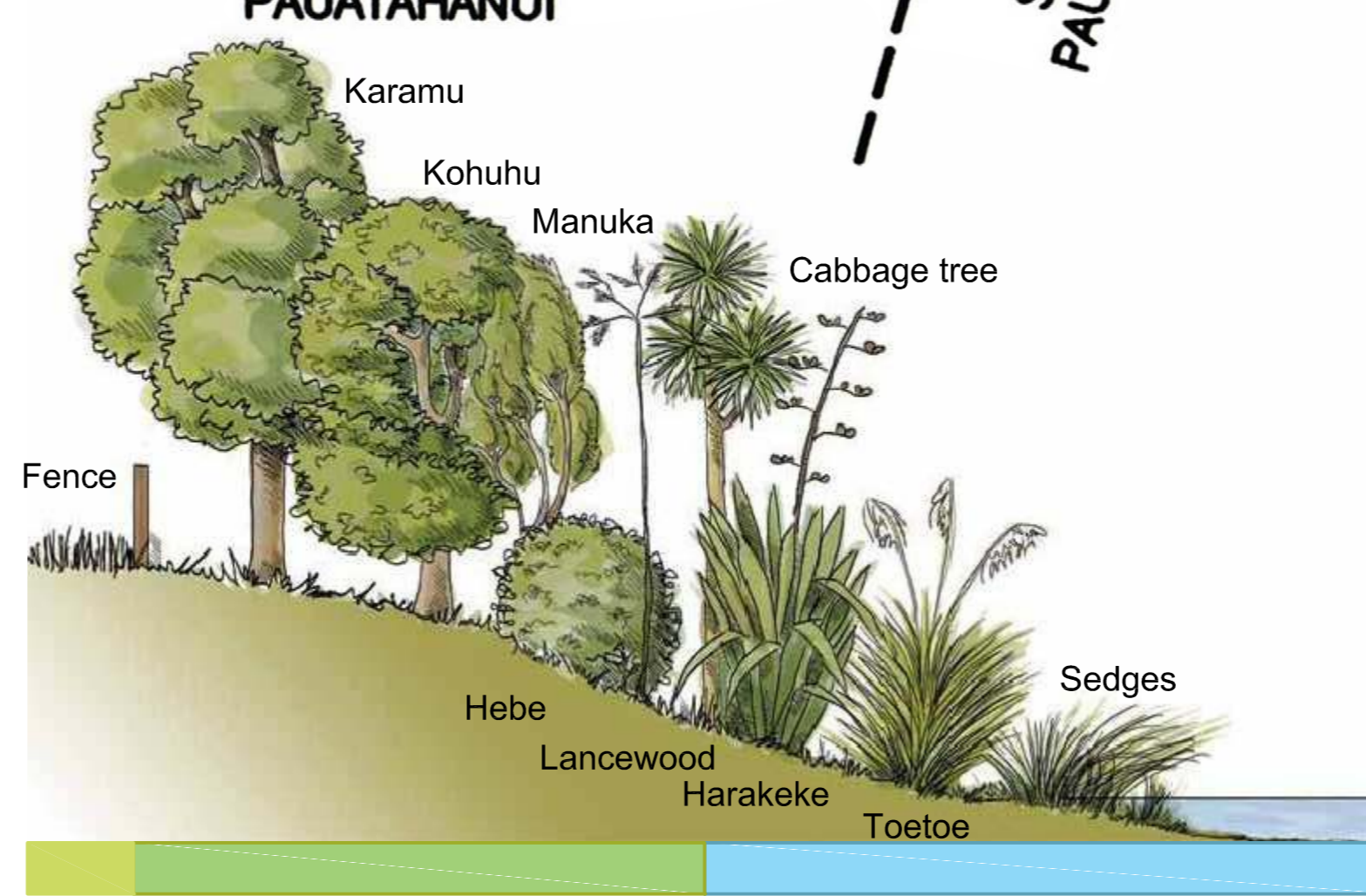
AREAS OF INDIGENOUS REGENERATION PARALLEL TO ROAD

Ensure areas of indigenous regeneration parallel to road are subject to minimal disturbance during harvesting operations.

| Fernhill Planting Schedule | | | | | | | | | | |
|----------------------------|----------------------|------|------------------|---------|---------|-----------------|-------------------|------------------|------------------|-----------------|
| Scientific Name | Common Name | Code | Light Preference | Grade | Centres | Density | Stage 1a | Stage 1b | Stage 2 | |
| Riparian Planting | | | | | | | Plants /ha | 2008.000 | 2009.000 | 2010.000 |
| Carex secta | Pukio / Swamp Sedges | | Sun | Pb3 | 1m | 3000.000 | 3970.500 | 0.000 | 2070.000 | |
| Cordylina australis | Cabbage Tree | | Sun/Shade | Pb5 | 1.5m | 333.000 | 440.726 | 0.000 | 229.770 | |
| Cortaderia fulvida | Toetoe | | Sun | Pb5 | 1m | 2000.000 | 2647.000 | 0.000 | 1380.000 | |
| Phormium tenax | Harakeke | | Sun | Pb5 | 1m | 1333.000 | 1764.226 | 0.000 | 919.770 | |
| Pseudopanax crassifolius | Horoeaka / Lancewood | | Sun/Shade | Pb5 | 1.5m | 111.000 | 146.909 | 0.000 | 76.590 | |
| Oleria paniculata | Aliaho | | Sun/Shade | Pb5 | 1.5m | 222.000 | 293.817 | 0.000 | 153.180 | |
| Myoporum laetum | Ngaio | | Sun | Pb5 | 1.5m | 222.000 | 293.817 | 0.000 | 153.180 | |
| Total | | | | | | 7221.000 | 9556.993 | 0.000 | 4982.490 | |
| Protection Planting | | | | | | | Plants /ha | 2008.000 | 2009.000 | 2010.000 |
| Phormium tenax | Harakeke | | Sun | Pb5 | 1.5m | 800.000 | 1405.120 | 1474.640 | 1248.000 | |
| Aristotelia serrata | Makomako/Wine berry | | Sun/Shade | Pb5 | 1.5m | 111.000 | 194.960 | 204.606 | 173.160 | |
| Astelia gradis | Karamu | | Sun/Shade | Pb5 | 1.5m | 111.000 | 194.960 | 204.606 | 173.160 | |
| Cordylina australis | Cabbage Tree | | Sun/Shade | Pb5 | 1.5m | 222.000 | 389.921 | 409.213 | 346.320 | |
| Cortaderia fulvida | Toetoe | | Sun | Pb5 | 1.5m | 888.000 | 1559.683 | 1636.850 | 1385.280 | |
| Pittosporum tenuifolium | Kohuhu | | Sun/Shade | Pb5 | 1.5m | 222.000 | 389.921 | 409.213 | 346.320 | |
| Pittosporum eugenoides | Tarata/Lemonwood | | Sun/Shade | Pb5 | 1.5m | 111.000 | 194.960 | 204.606 | 173.160 | |
| Plagianthus regius | Manatu / Ribbonwood | | Sun | Pb5 | 1.5m | 88.000 | 154.563 | 162.210 | 137.280 | |
| Leptospermum scoparium | Manuka | | Sun | Pb5 | 1.5m | 888.000 | 1559.683 | 1636.850 | 1385.280 | |
| Meliclytus ramiflorus | Mahoe | | Sun/Shade | Pb5 | 1.5m | 222.000 | 389.921 | 409.213 | 346.320 | |
| Podocarpus totara | Totara | | Sun/Shade | Pb5 | 3m | 55.000 | 219.550 | 230.413 | 195.000 | |
| Dacrydium dacrydioides | Kahikatea | | Sun/Shade | 1.5m ht | 3m | 27.000 | 47.423 | 49.769 | 42.120 | |
| Dacrydium cupressinum | Rimu | | Sun/Shade | 1.5m ht | 3m | 55.000 | 96.602 | 101.382 | 85.800 | |
| Cyathea | Ponga | | Shade | 1.5m ht | 2m | 125.000 | 219.550 | 230.413 | 195.000 | |
| Pseudopanax arboreus | Five Finger | | Shade | Pb5 | 1.5m | 111.000 | 219.550 | 230.413 | 195.000 | |
| Total | | | | | | 4036.000 | 7236.368 | 7594.396 | 6427.200 | |
| Landscape Planting | | | | | | | Plants /ha | 2008.000 | 2009.000 | 2010.000 |
| Kunzea ericoides | Kanuka | | Sun | Pb5 | 1.5m | 888.000 | 10611.600 | 9102.000 | 4972.800 | |
| Leptospermum scoparium | Manuka | | Sun | Pb5 | 1.5m | 888.000 | 10611.600 | 9102.000 | 4972.800 | |
| Aristotelia serrata | Wineberry | | Sun/Shade | Pb5 | 1.5m | 111.000 | 1326.450 | 1137.750 | 621.600 | |
| Hebe stricta | Koromiko | | Sun/Shade | Pb5 | 1.5m | 222.000 | 2652.900 | 2275.500 | 1243.200 | |
| Coprosma robusta | Karamu | | Sun/Shade | Pb5 | 1.5m | 222.000 | 2652.900 | 2275.500 | 1243.200 | |
| Cordylina australis | Cabbage Tree | | Sun/Shade | Pb5 | 1.5m | 222.000 | 2652.900 | 2275.500 | 1243.200 | |
| Meliclytus ramiflorus | Mahoe | | Sun/Shade | Pb5 | 1.5m | 111.000 | 1326.450 | 1137.750 | 621.600 | |
| Myrsine australis | Mapou | | Sun/Shade | Pb5 | 1.5m | 111.000 | 1326.450 | 1137.750 | 621.600 | |
| Phormium tenax | Harakeke | | Sun | Pb5 | 1.5m | 888.000 | 9285.150 | 7964.250 | 4351.200 | |
| Podocarpus totara | Totara | | Sun/Shade | Pb5 | 3m | 55.000 | 1493.750 | 1281.250 | 700.000 | |
| Beilschmiedia tawa | Tawa | | Shade | Pb5 | 3m | 55.000 | 657.250 | 563.750 | 308.000 | |
| Cyathea | Ponga | | Shade | 1.5m ht | 2m | 125.000 | 1493.750 | 1281.250 | 700.000 | |
| Sophora microshylla | Kowhai | | Sun/Shade | Pb5 | 3m | 27.000 | 1493.750 | 1281.250 | 700.000 | |
| Total | | | | | | 3925.000 | 47584.900 | 40815.500 | 22299.200 | |



Typical Transition Planting Structure



Typical Riparian Planting Structure

| RevNo | Revision note | Date | Signature | Checked |
|-------|---------------|------|-----------|---------|
| | | | | |



314 Flightys Road, Pauatahanui, New Zealand

| | | | |
|-------------|--------------------------------|----------|-------|
| Designed by | Filename | Date | Scale |
| | 1439 SFC Fernhill Planting 2.6 | 04.04.07 | N/A |

Checked by

Version 2.7

| | |
|-------|-----------|
| Rev 0 | Sheet 1/1 |
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