

### What kinds of plants we have used and why?

Users of the Mackays to Peka Peka (M2PP) Expressway will be surrounded by extensive plantings of more than 1.4 million native and exotic plants along the road sides and in adjoining areas, like the M2PP shared pathway. As part of the Expressway construction, this mass planting has been done to:

- screen unwanted views
- replace any vegetation lost
- restore the wetlands and riparian vegetation along waterways
- and provide a pleasant visual landscape setting for the roadway.

#### What the team looked for

To decide what range of plant types would be used along the Expressway, Boffa Miskell landscape architects and ecologists looked closely at the character of the different local area landscapes the Expressway touches, and took guidance from the local vegetation.

As part of the environmental design, the team looked at local ground conditions (like peat or sand and their moisture levels) and the aspect to sun and wind of different locations. Seed was collected from naturally established local vegetation (this is called 'ecosourcing') and the landscape character of each area was carefully considered.



#### The right plants for the landscape

Where the road goes through open pasture with shelterbelts, like the farmland at Peka Peka, the edges are grassed and exotic tree groups planted to match.



Where the road is near blocks of established native vegetation, as is the case near Ngā Manu Nature Reserve, a range of native shrubs and small trees, together with slower growing tall forest trees, are planted in a random way - as they would grow naturally.

Where the road travels through urban areas or special intersections, like Kāpiti Road and Te Moana Road, a mix of native and exotic plants are planted in a more formal or structured arrangement.

Where a stream or waterway passes under the Expressway, like Waimeha Stream, Kakariki Stream and the Paetawa Drain, riparian species are planted to shade the stream and revegetate the edge as a habitat for fish and insects and to generally improve water quality.

#### Helping manage water flows

Any runoff from the road gets collected in swales and passed through wetlands before discharging to streams. Like many locations along the Expressway, native grasses are planted to slow the runoff and capture silt and any contaminants that might be in the water.

Sometimes areas are needed to hold large amounts of stormwater during high rainfall events so some flat areas, like the end of Ihakara Street, are planted with native grasses and woody wetland plants to slow water flow and offer habitats for bird and stream life.

#### The future of the Expressway planting

Plants will be more successful if they suit the local climate conditions and grow in the local area. Using native plants that have been propagated from seed collected from plants in the local ecological area, as has been done for the Expressway, ensures the plants are likely to establish readily, will suit the area and will contribute to the local environmental character. Over time, natural process will mean that some plants grow taller and overtopped plants die out, but the ground will always be fully vegetated and protect the ground from erosion.

Collectively, the new Expressway plantings and efforts by local landowners will see an improved environment on the Kāpiti Coast.

#### Acknowledgement

The Kāpiti Coast District Council publication *Kāpiti District Endemic Floral Species List* is a very useful species reference guide to use for restorative planting in the Foxton Ecological District, compiled by Matt Ward, on 3 April 2012. This publication was used as part of deciding what plants were appropriate for the Expressway area. You can find it on the Council's website at: <http://www.kapiticoast.govt.nz>

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