

Max's Pipe Dream – An Engineer's Garden

Ellerslie International Flower Show

Pirate Gold

Toto

Blue
Marguerite

Green Leaf

Red Oxide

Nero

'Max's Pipe Dream - An Engineer's Garden' is an award winning exhibition garden displayed at this year's Ellerslie International Flower Show held in Christchurch. The garden is inspired by the Mackenzie Country landscape and the Waitaki Hydroelectric Power Scheme.

Beca's Landscape Architecture team designed the garden as they imagined how Max Smith (project engineer for the Upper Waitaki Hydroelectric Power Scheme) might have created it himself in Twizel, using the construction materials and plants found in the surrounding landscape.

The garden contrasts large scale man made elements and materials with the natural forms and textures of native plants and exotic "weed" species. The garden has a large three-metre diameter penstock nestled into one side of the 10m x 10m garden, set amongst planting providing shelter and a space to relax and enjoy the garden. The middle section of the penstock opens out to the canal water feature running through the centre of the garden. Water flows from a bank of brightly painted concrete pipes along the back wall, cascading into the canal water feature. The water feature represents the network of canals that traverse the Mackenzie landscape carrying large volumes of water to the various hydro lakes and power stations.

Around the key structural elements, the array of plants reflects the diversity of the vegetation in the wider Mackenzie region, from the exotic evergreens, conifers and pines to the tussock grasslands and beech forest pockets. Scattered among the planting will be lupins, wilding pines and willows which are problem weed species in the Mackenzie landscape but also a recognisable part of its landscape character – a "weeds and all" approach.

The garden also reflects elements of

Max Smith's passion for rowing, his love of which saw him create the world-class rowing facility, Lake Ruataniwha, at the completion of the Upper Waitaki power scheme. Rowing oars are displayed within the penstock and also used as vertical sculptural elements within the planting.

Beca is a large multidisciplinary firm and the garden is a showcase of the work done by Beca using a broad range of skills from within the firm to create the garden. The design and construction team included landscape architects, lighting designers, water and pumping specialists and structural engineers. The broader staff from Beca assisted in the construction of the garden providing volunteer labour in the evenings and weekends to get the construction completed within the three week build up period prior to the Show opening to the public.

Local landscape and construction firm GSL built the major elements of the garden supported by Hynds Pipe Systems who provided the large precast concrete elements including pipes and concrete cattle stop that was used as a bridge across the canal. Fulton Hogan supplied aggregates and asphalt and paints were from Resene.

The colour scheme was drawn and abstracted from elements of the Mackenzie District landscape:

- Tussock grasslands, Golden Speargrass = Resene Pirate Gold (concrete pipes)
- Hydro lakes and canals = Resene Toto (concrete pipes)
- Wild lupins = Resene Blue Marguerite (concrete pipes)
- Beech trees = Resene Green Leaf (concrete pipes)
- Colour of penstocks in the Waitaki Hydroelectric Power Scheme = Resene Red Oxide
- Night 'Dark Sky' = Resene Nero (Fence,

timber, dunnage, rowing oars)

Resene Lumbersider was used on most elements of the garden. Resene Summit Roof was used for the Resene Red Oxide finished concrete pipes, and with SRG Grit added to create the desired textured effect on the penstocks.

The water in the canal was coloured to match the opaque sky blue colour of the hydro lakes and canals which is created by the suspended particles of glacial 'rock flour' in the water carried down from the mountains. To achieve this same effect in the garden, a cup of white Resene acrylic paint was added to the water to provide the suspended solids in the water and then coloured with blue food colouring.

Max's Pipe Dream won three major awards at Ellerslie: the Supreme Judges Award - Best in Show, a Gold Award in the Horticultural Exhibition garden category, and a Silver Award for Lighting.

The garden was constructed over three weeks using local construction firm GSL, however the painting and planting was carried out by Beca staff volunteering on the weekends and evenings. This provided a great opportunity for a broader Beca team to get involved in the garden.

The garden was initially intended to be exhibited at the 2011 Ellerslie International Flower Show, and was halfway through construction when the February 22 2011 earthquake struck cancelling the 2011 show. Beca together with key sponsors GSL, Hynds and Fulton Hogan were very keen to complete the 'unfinished business' and rebuilt the garden for the March 2012 show.

Max Smith, who inspired the garden, now lives at Waipara where he is involved in the wine industry. He was recently honoured in the New Year's Honours list being made a Member of the New Zealand Order of Merit for services to rowing. Max opened the garden at the Show.





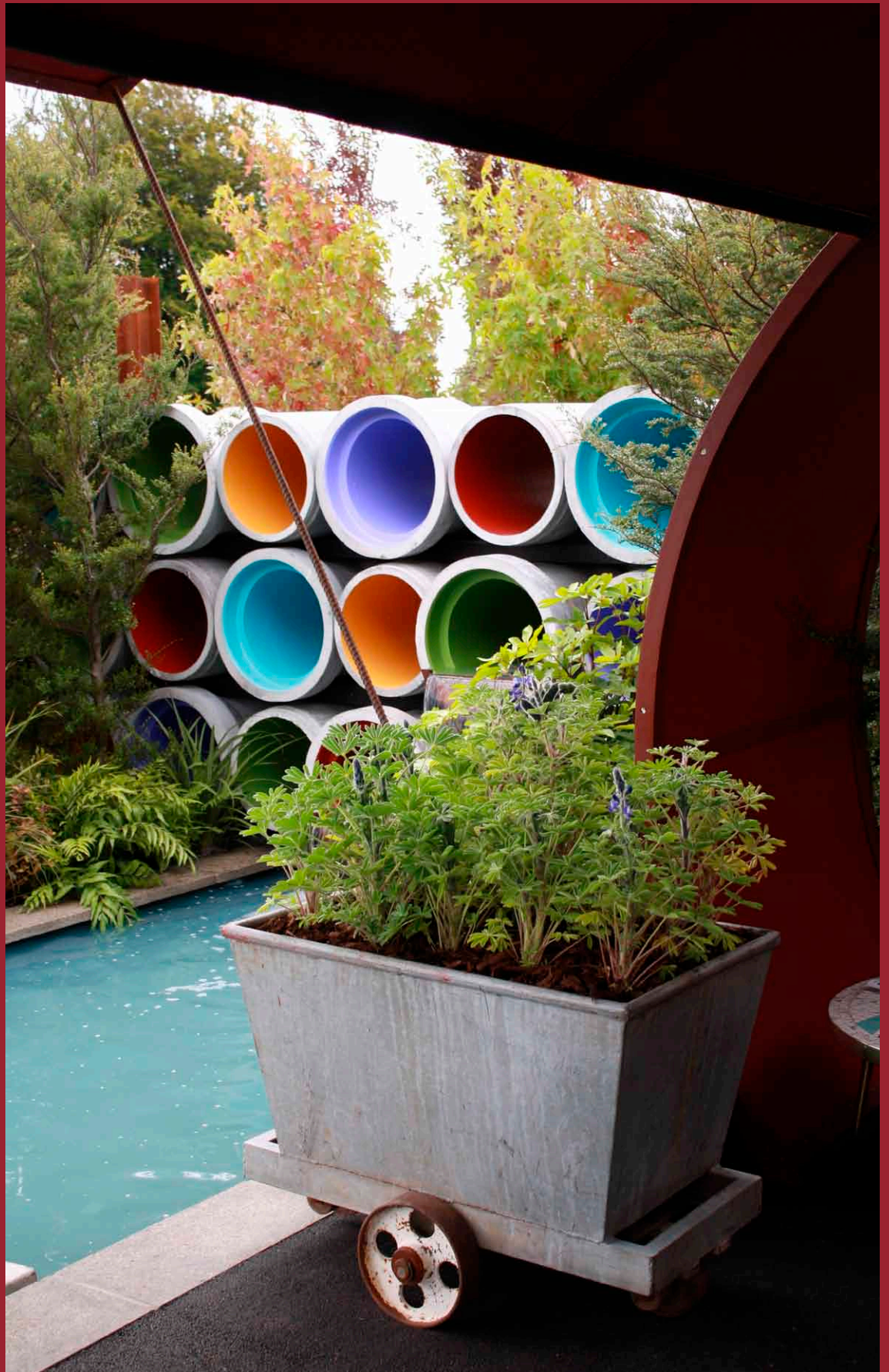
Architectural Specifier: Beca www.beca.com

Building Contractor: GSL www.gsl.co.nz

Colour Selection: Beca www.beca.com

Photographer: Paul Roper-Gee

Other Key Contributors: Hynds www.hynds.co.nz,
Fulton Hogan www.fultonhogan.com







Resene Shiraz