

International / Environmental Design Award for Lincoln

By Fiona McLeod

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Lincoln University and Ngai Tahu Property's residential development at Lincoln has earned global recognition for design.

The project was recently awarded third place in the Annual Golder Global Sustainability Awards, recognising outstanding achievement for environmental design - with particular reference to stormwater management and treatment.

This is the third year the awards have run and Dr Greg Burrell, Senior Scientist at Golder Associates (NZ) Ltd, says achieving a place is significant for Lincoln and for Golder.

"It's exciting to win because of the fact that we were up against a large number of entries from all over the world."

The criteria examined a number of sustainability measures. Greg Burrell says the Lincoln development stood out for its high standard of community consultation and the ecological considerations built into its waterway design.

"Lincoln Land Developments has taken advantage of the opportunity for waterway enhancement rather than opting to maintain the existing low ecological values of the waterways on the site. Rather than simply cleaning up stormwater, new natural habitats will be established to encourage wildlife and walkways have been integrated into the design to encourage community enjoyment and custodianship of the waterways."

"Collectively these attributes made for an award winning development," adds Greg Burrell.

Rob Kerr, Director of Kerr and Partners, the Lincoln project's stormwater engineer says it is very pleasing to have their good work on the project recognised by an international consultancy, specialising in environmental protection and ecological research.

Rob Kerr says the advantages to the project include:

1. Educational and interpretive signs, which help inform the community of the treatment process, various habitats and custodianship responsibilities
2. The use of swales - shallow, wide, grassy channels which filter and settle out contaminants, such as heavy metals, nutrients, fecal matter and suspended sediment
3. A two metre deep pond allowing further contaminants to settle out, biological action to take place and UV light to filter through the water
4. Up to four days flow through shallow, heavily planted wetland
5. Holding in a settlement basin and gradual release, which reduces flood risk.

Rob Kerr says the varying depths and meandering flow of water helps recreate the natural habitat of the longfin eel, a threatened native species known to live in local waterways.

"The end result is enhanced water being fed into Te Waihora, Lake Ellesmere and a 'better

than best' practice approach," he says.

All new subdivisions have a required level of stormwater treatment however, Lincoln goes beyond standard practice. It features a network of ponds, parks and waterways, planned in accordance with the sustainable principles of LEED (Leadership in Energy and Environmental Design), an internationally recognised green building certification system developed by the US Green Building Council.

Studies so far have shown that contaminants left in the water leaving the subdivision will be lower than what currently enters the waterway from the undeveloped, mostly rural catchment.

Golder Associates is a global employee-owned company with international expertise in ground engineering, earth and environmental services. As a result of the award, the Golder Trust for Orphans has received a donation on behalf of Golder Associates (NZ) Limited and Lincoln Land Developments has been presented with a plaque honouring this achievement.

Golder Associates (NZ) Limited has been involved in the Lincoln project since its inception with collaboration between aquatic and terrestrial ecologists, hydrogeologists and environmental scientists. These experts assess environmental conditions including groundwater, surface water quality and ecology, which help shape the ecological design of the development. They also prepare an Environmental Impact Assessment which aims to minimise adverse effects on groundwater (including springs), water quality and aquatic ecology.



Artists impression of the eastern wetland basin.