



Waitakere City Council
Te Taiāo o Waitakere

Sustainable Buildings in the Auckland Region

foundations for a better future



AUCKLAND SUSTAINABLE CITIES PROGRAMME

A regional partnership with the Sustainable Development Programme of Action



Walking the Talk

Landcare Research/Manaaki Whenua Tamaki Building

Landcare Research/Manaaki Whenua's state of the art green building at the University of Auckland's Tamaki Campus has been the poster child in local sustainable building circles for a couple of years now. But the news just keeps getting better as the building delivers more and more on the "how to" side of greener building.

When Landcare Research moved to the University of Auckland's Tamaki Campus, it wanted to demonstrate how it might be possible to make a building much more environmentally friendly than normal, but for the same budget as a conventional building.

Under normal circumstances that might not be such a big ask: you opt for a straightforward design, get rid of the air-conditioning, install a couple of solar panels on the roof and some low-flush toilets and, voila, a green building under budget.

Unfortunately of course it's not quite that simple. The performance requirements for the Landcare Research building are far more complex than they are for a normal commercial building. It houses offices, research laboratories, controlled-climate greenhouses and the vast national collections of insects and fungi; comprising over six million specimens.

Under these challenging design circumstances Landcare have done remarkably well. The building not only came within its \$11.3 million budget, but in a post-construction audit of the building, Rawlinsons construction costs and management consultants estimated cost savings of about \$300,000 when compared to a conventional building.

What Landcare ended up with is a 4000m² three-level state-of-the-art sustainably designed laboratory (along with 650m² of glasshouses). Annual energy savings are anticipated at between 60-70 percent (approx \$70,000) when compared with a standard air-conditioned building.

Architects Chow:Hill and engineers Connell Mott MacDonald worked with Landcare Research to design the Tamaki building to reduce demands for energy and water, to reduce its impact in terms of stormwater and sewage, and also to make use of more sustainable materials and finishes.

ENERGY SAVINGS

Landcare Research had some key goals relating to sustainability:

- The building had to be designed holistically for sustainability.
- Construction costs were not to be increased because the building was sustainable.



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By Robert Vale and Margaret Lawton of Landcare Research, additional writing by Kelsang Wangchuk.