



the goodies

Graham Cleary, from landscape design-and-build company Natural Habitats, explains what's so clever about green roofs and walls

On a scale of one to 10 – one being George Bush and 10 being Nandor Tanczos – where do you sit? Around eight or nine.

What do you do that you're ashamed of?

I use too much petrol.

Global warming: humans are responsible or it was going to happen anyway?

We're certainly having a contribution.

What's the green issue closest to your heart?

Habitat destruction is a major one. At the moment, I'm replanting some land on Great Barrier Island.

Do you have a compost? Yip. It's pretty basic – just vegetable waste and grass clippings in a bin.

When did you last catch a bus? It would be overseas, earlier this year.

Were your underpants made in China?

They definitely weren't. I don't wear them, but I avoid the 'made in China' thing.

What are green roofs and walls? Here in New Zealand, they are mostly intensive roofs, which are more for driving up the value of real estate projects. It's like building a garden as you would in your home or office, but on roofs. Overseas, though, they have started to go for what we call extensive green roofs. Those are for mainly ecological benefits... stormwater mitigation benefits, pollution benefits, habitat benefits. Green walls have similar ecological benefits to green roofs.

What are the eco benefits of green roofs?

Mitigation of what's called the 'heat island' effect of cities is a major part of it, especially in Europe. They are calling it the cooling of cities, and in places

where they have legislated to make green roofs a requirement, they can measure the dropping of heat over their cities. I think Stuttgart's up to 15 percent of total roof space in green roofs. They figure if they can get 10 percent of New York city covered in green roofs, they don't have to replace their sewers for a number of decades. And the cost of replacing their sewers is obviously in the billions of dollars.

How does it work? When rain falls onto a typical bitumen skyscraper roof, it rushes into stormwater; rushes into sewerage. But if it hits a green roof it slows it considerably – it has to go through the plants and the soil and so on – and about 25 percent is used or transpires out of the plants. It takes a loading off the infrastructure of the city, which is a cost-saver.

Do you have to be careful about the extra weight?

That's a key consideration. Our current media is about 30 percent the weight of soil.

When you say media, what is this stuff?

The majority of the mix is recycled lightweight plastics – we've managed to make these things act like soil. And we take polystyrene from building sites. We're keeping it out of waste landfills.

So the green alternative can save money?

There was a paper published by the Building Research Association of New Zealand showing that if you put a green roof on a house, on day one it will cost you twice as much. But within 10 years, taking into account maintenance, the life of the roof and energy savings, it's a quarter of the cost. INTERVIEW WITH GREG ROUGHAN

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