

A project restoring the health of the Little Stringybark Creek (Mt Evelyn) by keeping stormwater in the catchment



Project Achievements to date:

Properties:	56
Roof area being treated:	13,740m ²
Mains water saved:	5,956,000 L/yr
Nitrogen retained:	15.24 kg/yr
Total tank volume:	636,390 Litres
Rain-gardens (private):	7
Rain-gardens (public):	0



Project Update

AUTUMN 2009

Welcome to the first update of the Little Stringybark Creek project.

We have sent you this update because you own property within the catchment of the Little Stringybark Creek, or have expressed an interest in the project.

As work continues on this research project, we hope to keep you informed on our progress towards improving the health of the Creek.

We will keep you abreast on the stormwater retention works on public lands, house-hold tank installations and our creek health monitoring program.

So why bother updating you? Because the Little Stringybark Creek project relies on the involvement and goodwill of all residents in the project area. Much of the work that needs doing has to be done on private land, or on public land used by the local community. It's only with everyone's co-operation that this project will be successful.

We hope that you will find these occasional updates of interest.

Should you no longer wish to receive further updates, then please contact Darren Bos on 0447 551 522 or dbos@unimelb.edu.au to have your name removed from the mailing list.

The first works near completion

It was back in October 2008 that the first Rebate Claim form was received. This was a milestone for the project, meaning that the first rainwater tank funded via Stormwater Tender had been installed and the project had officially commenced making a difference to the health of the Little Stringybark Creek.

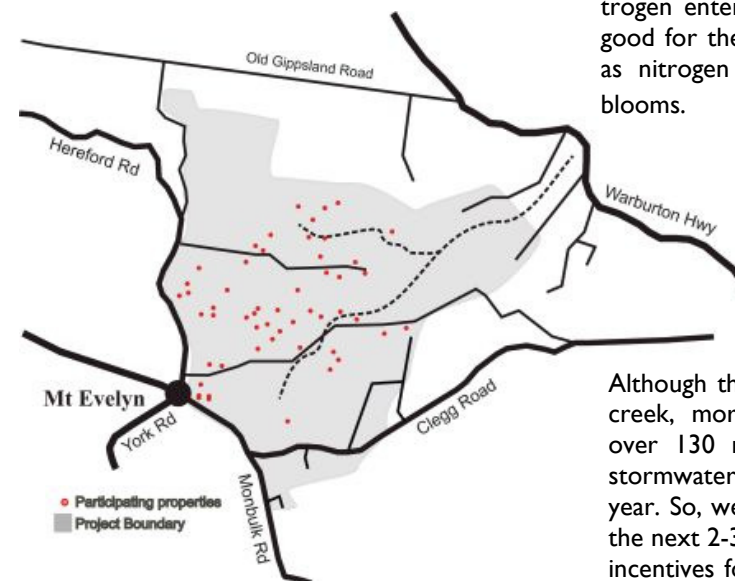
This rainwater tank was just the first of many to be installed over the summer.

Soon, all of the 55 properties funded through

Stormwater Tender will have their stormwater retention systems in place. When they have, we estimate that together they will save over 5,927,000 litres (or 2,371 Olympic swimming pools!) of mains water a year.

That also means that there will be 5 million litres less stormwater now entering and doing damage to the creek each year.

In addition to the water savings, participating properties will each year prevent 14kg of nitrogen entering the creek. This is particularly good for the Yarra River and Port Phillip Bay, as nitrogen is a contributing factor in algal blooms.



Left: The approximate location of the first 55 properties to install rainwater tanks and rain-gardens as part of the Little Stringybark Creek project.

Although this represents a good start for the creek, more work is required. Remember, over 130 million litres of excess, nuisance stormwater flows into the creek in an average year. So, we still have a long way to go! Over the next 2-3 years, we hope to offer additional incentives for people to participate in the Little Stringybark Creek project.

Rain-gardens @ Rangeview Road

In May 2008 we held a Rain-garden Open Day. Over one weekend the project team constructed two rain-gardens on a property in Rangeview Road, which had won our "Rain-garden Lotto".

The rain-gardens were built in order to demonstrate how rain-gardens work and show their potential role in protecting the Little Stringybark Creek. The Open-Day was a great success, with over 70 people coming to see the two rain-gardens and talk to members of the project team.

We are happy to report that both rain-gardens continue to thrive, even after the long hot summer. The plants have survived, and are now putting on new summer growth. The owners of property, Richard and Felicity have had great joy in watching the raingardens grow over the last 10 months. "It has been amazing to see how well the plants have done since the garden was created" says Richard "especially during the recent dry spell, where they not only survived, they put on lots of new growth".



*Below: Planting the rain-garden (May '08).
Above: A birds-eye view of the rain-garden (March '09).*

Neither rain-garden has been heavily watered, although ".....we have given the front garden a little bit of bath water." said Felicity



Now, these two rain-gardens are adding additional value to the project, increasing our knowledge of how they function.

The rain-garden located in the backyard was built with a water depth recorder, which monitors the depth of water below the surface. In conjunction with the on-site rain gauge, it is now possible to monitor how the rain-garden copes with and treats the stormwater it receives. We can also measure how quickly or slowly the water infiltrates into the soil.

And the good news is that the rain-garden appears to be behaving itself very well. Over the last 10 months, the water has consistently settled back to 30-40 cm below the soil surface after rain. Except of course, during the dry period, when the plants accessed and used the store of water drawing, it down slowly over 8 weeks of no rain. By the time it rained again (3 March), the plants remained as healthy as ever, because the raingarden still held more than 20 cm of water in its depths. This is exactly what the system was designed to do.

So while so many of the trees and garden plants were shutting down to cope with our hot summer, the raingarden plants were carrying on, business as usual, helping to cool the neighbourhood, by taking up water and releasing it into the hot air.

And importantly, the raingarden has only overflowed onto the lawn 3 or 4 times (and then only a little and only briefly). This means that sufficient water is able to infiltrate into the surrounding soil and that the raingarden is appropriately sized for its catchment.

Monitoring of the raingarden will continue for sometime yet, sostay tuned.

So, was it worth it?

When Greg Stringer first got his invitation to participate in Stormwater Tender, he was, like many people, a little skeptical.

"I've already saved 6000 litres of run off water from going into Stringybark Creek, how good is that!!!"

"I thought that there had to be a catch somewhere." Greg now jokes. But upon reading the information, Greg says he realised what a great opportunity it really was, "I had always wanted to get tanks, but they cost a lot to have installed.....but with this offer I had a good chance of finally getting the tanks I wanted".

Like many people, Greg encountered a few setbacks along the way. 'Missing' plumbers, lost paperwork, and a very tight squeeze fitting the tanks in were just a few of them. But Greg notes that ".....the application process in itself was not that hard or overly complicated.....it just took a little time to do, and you needed to be patient and maybe be a little organised".

Greg also notes that a little imagination helped him along the way. "We had some interesting challenges facing us if we wanted to get most of our roof into the tanks. The final solution was nothing like we had first planned."

So was it worth it?

"Oh definitely" says Greg. "I now have all my roof running into two large tanks which are connected to two garden taps and all

my internal plumbing, and with 4 kids, I know I am sure that I will save money on my water bills for years to come."

But for Greg, it's more than just saving money. After the first rains of summer, Greg commented that he had "..... already saved 6000 litres of run off water from going into Stringybark Creek, **how good is that!!!**"



Two down pipes are joined (far left) in order to redirect them into a collection pit (left) from where the stormwater from all the roof is pumped into two 9,000 litre tanks (above).



The 'non-bidders' tell their tale

Why didn't more people apply to Stormwater Tender? This was the question we were keen to answer following the conclusion of the Stormwater Tender bidding process. Although we had 303 people register their interest, only a third of those submitted bids.

Why? And why did less than half of the local land owners express any interest in the program at all?

"I did not realise you could get a 'home visit' this would have given me a better understanding of both the project and works required."

To help answer these questions, we conducted a short survey of those residents who officially registered their interest in Stormwater Tender, but never submitted a bid. The 'non-bidder survey' consisted of 8 questions asking how familiar people were with the program and what barriers they encountered that prevented them

from applying.

A total of 36 people responded to the survey. The most common responses, when asked why they did not applying to Stormwater Tender, were:

1. Ran out of time (54%)
2. Could not afford the upfront payments (48%)
3. It was all too confusing (42%)
4. Was not sure what works to do on my house (33%)

These responses, along with other comments provided in the survey will help us to develop a better approach

to supporting the installation of rainwater tanks. Should we manage to obtain additional funding, then the new program will need to be less time consuming, easier to understand and eliminate the burden of upfront payments. This is reflected in the comments we received from respondents when asked how we could improve the process. The following is typical of those responses:

"Try to streamline the process if possible - make it less confusing.....we simply could not afford to pay for the tank and installation upfront and then wait for it to be reimbursed....."

We are grateful to all those who responded. If you have any comments on why you did not apply or register your interest, then feel free to email the Project Coordinator at dbos@unimelb.edu.au.



Above: Two approaches to treating stormwater and encouraging infiltration into the soil. Both systems were funded through Stormwater Tender