

Compost blanket project

February 2018



Inspecting a roadside compost blanket at a Lake Macquarie demonstration.
Photo: The Hills Bark Blower

“The specific compost provides a blanket for erosion control and a growing media for plants. They just make environmental sense.”

Shaun Bonny,
erosion control
manager, The Hills
Bark Blower

Compost assists with roadside erosion control

Extensive research has reported the effectiveness of compost blankets for erosion control, revegetation and rehabilitation on new and existing roadsides.

The project aimed to breach the gap between knowledge and practice through site-based learning.

Understanding of how to specify and apply compost is an industry need.

This project was delivered by the Hills Bark Blower company and Penelope's Garden with \$82,150 from the EPA's Waste Less, Recycle More Organics Market Development grants. It involved four site-based learning demonstrations on roadside verges to show how compost blankets are an effective environmental tool for roadway construction and maintenance.

The four sites included a motorway ramp, a new industrial site and a national highway upgrade. All sites had steep slopes requiring stabilisation.



Attendees on-site. Photo: EPA

Site-based learning

More than 150 construction and roadway professionals attended demonstration days in Western Sydney, Lake Macquarie, the South Coast and the North Coast. They included representatives from local councils, development companies, Roads and Maritime Services and urban and rural landscape organisations.

Compost blankets were installed, established blankets were inspected, handouts were provided and information sessions and open-forum discussions were held.

Soil testing occurred at each site. Seed that was endemic to the local plant community was selected and prepared for installation. Some sites expanded into an existing area.

Roads and Maritime Services (RMS) run regular workshops to help staff and contractors stay up-to-date with the latest technology.



Compost blanket being installed straight onto sandstone batter at the Lake Macquarie site. Photo: The Hills Bark Blower.

“We are really pleased with the success of compost blankets and its use to rehabilitate these harsh sites.”

Shaun Bonny,
erosion control
manager, The Hills
Bark Blower

Compost application

At each site, attendees were shown how a tailored mix of native plant seeds, blended into a specified compost, can be blown onto the roadside verge where it adheres to the ground as a perfect medium for regrowth.

Some sites had examples of previously applied compost, providing a visual demonstration of the high germination rates and low plant loss from an earlier blanket application that had simply been watered in for the first few weeks or left to nature when it rained.

They learnt how compost particle size is important to ensure optimum performance as the compost product forms a ‘mat’ across the surface of the eroded or newly constructed area.

The compost used is a finer grade, with a particle size distribution ranging from 20 millimetres to very fine and less. The compost must also be well-aged to form the humus layer for effective erosion control and rehabilitation.

Although it is not necessary to seed the compost to form a useful erosion control, most blankets are seeded to create an attractive batter. Aged compost is needed, however, to germinate seed and filter hydrocarbons and other impurities away from stormwater catchments. The older it is, the less risk to detrimental run off.

“Since the demonstration at Teralba, I have observed the use of compost being discussed as a serious option for batters instead of hard options. There needs to be lots more education in the industry.”

Janine Koppel,
erosion and sediment control officer, Lake Macquarie City Council

As a landscape consultancy, The Hills Bark Blower company restores damaged landscapes back to life. They work closely with road contractors, property developers, councils, engineers and architects to develop effective and efficient erosion control practices.

Compost blankets as an effective erosion tool

Compost blankets work well as an erosion control because they:

- follow the landscape’s contours with 100% soil coverage
- can be injected with seed and provide an ideal growing media while providing erosion control
- have high germination rates
- work as stormwater filters by slowing the velocity of water run-off and allowing natural percolation of rainwater into soil
- improve the existing soil structure and biology.



Lake Macquarie site before the compost blanket was installed, and 12 months after. Photos: The Hills Bark Blower

Results

The project demonstrated to a critical audience how compost blankets work for erosion control and rehabilitation on denuded construction sites and are an effective medium for regrowth with minimum maintenance.

The 150 attendees learnt where and how compost blankets can be applied on roadways, particularly for erosion control mitigation and vegetation rehabilitation and how to specify compost blankets to get the best results.

Most attendees commented that they could see the positive results of compost blankets being used in the area.

Research documents for more information

The documents listed below can be found by typing the title in the search bar on the top right-hand corner of this page: <http://www.epa.nsw.gov.au/working-together/grants/organics-infrastructure-fund/organics-market>

[Guidelines for Using Compost in Land Rehabilitation and Catchment Management](#)

[Comparison of Recycled Organic Compost Blankets with Hydromulch in Controlling Soil Erosion Under Simulated Rainfall](#)

[Improving Water Quality in Catchments Using Compost Materials – Fact Sheet](#)

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