Total Environmental Concepts

PROJECT CASE STUDY

Jimboomba, QLD

Erosion control matting and hydraulic application for a sports reserve drainage corridor

Client: HEH Civil

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800 m²
AREA COMPLETED

3 t/ha
BFM + PROGANICS

Products Grassroots erosion control matting · BFM wood fibre & ProGanics (DuraVeg)

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OVERVIEW

Project snapshot

800 m²
AREA COMPLETED

3 t/ha
BFM + PROGANICS

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MOBILISATION

Project	Jimboomba, QLD — sports reserve drainage corridor
Client	HEH Civil
Contractor	TEC — Total Environmental Concepts
Scope	Erosion control matting supply & install, plus hydraulic application
Area completed	800 m²
Products	Grassroots matting; BFM wood fibre & ProGanics (DuraVeg)
Sector	Civil construction / sport & recreation, South East Queensland

Box culvert outlet and rock rip-rap apron, with matting lapped and terminated around the structure.

SCOPE

Two systems, one mobilisation

SYSTEM 01

Erosion control matting

- Grassroots matting rolled down-slope in the direction of flow, laid flush without bridging or tenting.
- Ends and edges keyed into crest and terminal anchor trenches, backfilled and compacted.
- Overlaps shingled downstream and pinned to the specified pin pattern and density.
- Lapped and terminated around the culvert headwall, outlet apron and concrete chute.

SYSTEM 02

BFM wood fibre + ProGanics

- Bonded fibre matrix and biotic soil amendment applied as a single slurry at 3 t/ha.
- Bonds over the matting, sealing overlaps, pin points and any area of imperfect contact.
- ProGanics rebuilds organic matter and biology in compacted, low-fertility subsoil.
- Applied by high-reach hose from the corridor edge — no plant on pinned matting.

SITE CONTEXT

Why the site needed treating

1

Freshly trimmed batter

Bulk earthworks and drainage left a long batter and overland flow path exposed for the full length of the site.

2

Concentrated discharge

A new box culvert outlet and concrete chute discharge onto the corridor — the highest-velocity, highest-scour zone on the job.

3

Bushland interface

Vegetated bushland and a downstream waterway sit immediately below the works, so sediment loss carries real environmental and approval risk.

4

Poor substrate

Compacted subsoil with negligible topsoil or organic matter would not sustain a cover crop on its own.

METHOD

How the works were delivered

01

Prepare & trench

Surface trimmed and cleared to achieve full soil contact, with anchor trenches excavated along the crest and at every terminal edge.

02

Install matting

Matting rolled down-slope, keyed into the trenches, backfilled and compacted, then shingled downstream and pinned to the specified pattern.

03

Tie in the structures

Matting lapped and terminated around the headwall, outlet apron and chute, tied into rock rip-rap at each discharge point.

04

Apply, cure & record

BFM and ProGanics applied at 3 t/ha over the matting and adjoining disturbed areas, with dated photographic records issued to the client.

SEQUENCING

Run as one continuous operation.

Matting install and hydraulic application ran back to back rather than as two mobilisations — closing the window in which the trimmed batter sat unprotected, and bonding the slurry to clean, fully seated matting.

PRODUCT

BFM and ProGanics — the specified system

Bonds, not just covers

The bonded fibre matrix cures into a continuous, flexible layer that holds the surface through the gaps matting alone leaves at overlaps and pin points.

Builds a growing layer

ProGanics delivers organic matter, biology and nutrient into subsoil, creating a medium for germination without importing topsoil.

Works with the matting

Applied over the installed matting so mechanical reinforcement and surface sealing act together rather than as alternatives.

Practical to apply

Delivered hydraulically by hose from the corridor edge, reaching a long, narrow work area without tracking plant over finished surfaces.

SPECIFICATION

3 t/ha	DuraVeg	800 m²
APPLICATION RATE	SUPPLIER	AREA TREATED

Seed, fertiliser and binder are blended into the slurry; rates and blend confirmed against the supplier data sheet and the approved ESCP for each area.

Complete bonded coverage carried around the rock chute and up to the structure edges.

OUTCOMES

What the treatment delivers

Protection from day one

Armouring in place from the moment of install, with no bare-soil exposure window between operations.

Continuous cover

No untreated gaps at the culvert outlet, chute discharge, matting overlaps or pin penetrations.

Sediment held on site

The adjoining bushland corridor and downstream waterway protected from construction-phase sediment loss.

Compliance evidence

Treated extents, products and dates recorded and photographed, supporting ESC obligations and council inspection.

Cured BFM surface along the full length of the corridor — bonded and holding on grade.

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Two systems, one mobilisation.

Application records, treated-area plans and dated site photography are available on request.

Prepared by TEC — Total Environmental Concepts

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