

# Quick Cost Benefit Analysis

Global Road Technology have a variety of dust control solutions depending on water availability, dust abatement required (80% dust suppression through to complete 100% dust free), traffic volume, road condition, all weather access and economic constraints.

Outlined in this document is an example of cost savings that can be achieved comparing the use of GRT products to using water on a 10km road, with 90% dust reduction targeted (almost impossible to achieve using water)

Over the 3 month example comparing using GRT product to using water:

- Saves money - cost savings begin from 21 days into project
- Saves \$327,680
- Saves 40%
- Saves 114,816,000 litres of water
- Saves 11,520 traffic movements
- Saves 268,800 heavy vehicle kilometres
- Saves 288 kg of greenhouse gasses
- Saves lives
- Saves maintenance

With proven results Global Road Technology increases safety and friction on unsealed roads, whilst providing a low maintenance, water proof solution when compared to continually watering and grading roads

GRT can tailor a dust control program to suit short or long term requirements, we can create all weather access tracks using in-situ material for short or long term use, whilst greatly reducing the need for imported material during construction phases.

**Scenario Parametres:** Advanced Polymer Seal for:  Light Traffic Conditions  Medium Traffic Conditions  Heavy Traffic Conditions

Road Length (m)	10,000	Water Truck wet Hire (\$/h)	\$146	Shift Duration (h)	10
Road Width (m)	8	Truck Capacity (l)	20,000	Water Application Rate (l/m2)	1.0
Applications per day	4	Spray bar Width (m)	6	Fill Time (min)	20
Return Distance to Water (m)	20,000	Application Speed (km/h)	15	Haulage Speed (km/h)	50



**Result Detail:**

**Conventional**

Area (m2)	80,000
Truck Loads per Application	4.0
Fill Time per load (hrs.)	0.33
Truck Cost per Application (\$)	\$554.22
Total Cost per day (\$)	\$2,297
Water per Application (l)	80,000
Haulage Time per Truck Load	0.40
Total Truck Time per load (hrs.)	0.96
Water Cost per Application (\$)	\$20
Total Water Consumption over Project (kl)	115,200
Spray Distance (m)	20,000
Application Time per load (hrs.)	0.22
Truck Time per Application (hrs.)	3.82
Total Cost per Application (\$)	\$574
Total Cost over Project (\$)	\$826,880

**GRT Solution**

GRT Product per Application (l)	16,000
Number of Maintenance Applications	3
Total Water Consumed (kl)	384
GRT Product Cost per Application (\$)	\$63,200
Initial Application Cost (\$)	\$249,600
Civil Engineering Cost per Application	\$20,000
Total Cost for Project Duration (\$)	\$499,200

