

Quick Cost Benefit Analysis

TeraFil has 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 TeraFil 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 TeraFil products to using water:

- Saves money - cost savings begin from 21 days into project
- Saves \$214,400
- Saves 40%
- Saves 30,331,178 gallons of water
- Saves 11,520 traffic movements
- Saves 167,000 heavy vehicle miles
- Saves 634 pounds of greenhouse gasses
- Saves lives
- Saves maintenance

With proven results TeraFil increases safety and friction on unsealed roads, while providing a low maintenance, water proof solution when compared to continually watering and grading roads.

TeraFil 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, while greatly reducing the need for imported material during construction phases.

Scenario Parameters:

Advanced Polymer Seal for: ☐ Light Traffic Conditions ☒ Medium Traffic Conditions ☐ Heavy Traffic Conditions

Road Length (miles)	6	:	Water Truck Wet Hire (\$/h)	\$95	:	Shift Duration (h)	10
Road Width (feet)	26	:	Truck Capacity (gallons)	5300	:	Water Application Rate (gal/ft2)	.3
Applications Per Day	4	:	Spray Bar Width (feet)	20	:	Fill Time (min)	20
Return Distance to Water (miles)	12	:	Application Speed (miles/h)	9	:	Haulage Speed (miles/h)	31

Result Detail:

Conventional

Area (ft2)	861,112
Truck Loads per Application	4.0
Fill Time per Load (hrs.)	0.33
Truck Cost per Application (\$)	\$362.66
Total Cost per Day (\$)	\$1,503
Water per Application (gallons)	21,133
Haulage Time per Truck Load	0.40
Total Truck Time per Load (hrs.)	0.96
Water Cost per Application (\$)	\$13
Total Water Consumption over Project (gal)	30,432,620
Spray Distance (miles)	12.5
Application Time per Load (hrs.)	0.22
Truck Time per Application (hrs.)	3.82
Total Cost per Application (\$)	\$375
Total Cost over Project (\$)	\$541,081

TeraFil Solution

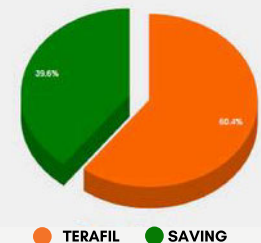
TeraFil Product per Application (gal)	4,226
Number of Maintenance Applications	3
Total Water Consumed (gallons)	101,442
TeraFil Product Cost per Application (\$)	\$41,355
Initial Application Cost (\$)	\$163,329
Civil Engineering Cost per Application	\$13,087
Total Cost for Project Duration (\$)	\$326,659



SUMMARY

Break Even Point (months)	5.2
Savings using TeraFil	\$214,422
% Saving using TeraFil	40%
Water Saving (gallons)	30,331,178
Traffic Movements Saved	11,520
Heavy Vehicle Miles Saved	167
Greenhouse Gasses Saved (pounds)	635

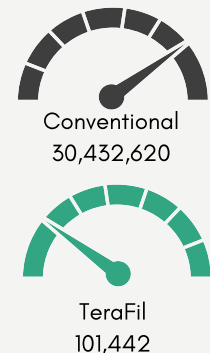
TERAFIL AS % OF CONVENTIONAL



CUMULATIVE PROJECT COST



WATER CONSUMPTION (GAL)



To find out more:

P: 910-420-8159 | E: sales@terafil.com

terafil.com



Disclaimer: This analysis was originally collected for Global Road Technology. Values have been converted to United States Dollar (from Australian Dollar) and United States Customary System (from metric system). This analysis is used by TeraFil LLC with knowledge and permission of Global Road Technology.