

## **Emulsion Chipsealing: Generating Conscious Capital**

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Chipsealing is a highly cost effective option for maintaining the skid resistance of pavement surfaces. Although the use of emulsified bitumen for chipsealing is safer and more energy efficient than cutback bitumen, widespread adoption in NZ is hindered by higher financial costs. Advances in technology and manufacturing have allowed bitumen emulsions to prove that they are viable alternatives to cutback bitumen and that they provide quantifiable gains in chipseal quality. In the current age of conscious capitalism, procurement of goods and services solely on the basis of financial cost, with little regard for environmental or safety factors is becoming increasingly indefensible. A triple bottom line accounting approach is employed to demonstrate that chipsealing using emulsified bitumen is as cost effective, if not more so than cutback bitumen. Environmental consciousness and recent changes to workplace health and safety legislation in NZ provides impetus for the true cost of chipsealing to be quantified. Chipsealing with emulsified bitumen eliminates many environmental and societal costs associated with the use of cutback bitumen, which tend to be borne largely by individuals who are exposed to avoidable health, safety and environmental risks. Use of emulsified bitumen shifts these costs from individuals and local communities onto wider society and those who enjoy the most benefit.