

"A community is more sustainable when all the threads pull together as one."

# Unsealed Roads Innovation on a Shoestring

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Tasman District Council



# Council's Challenge



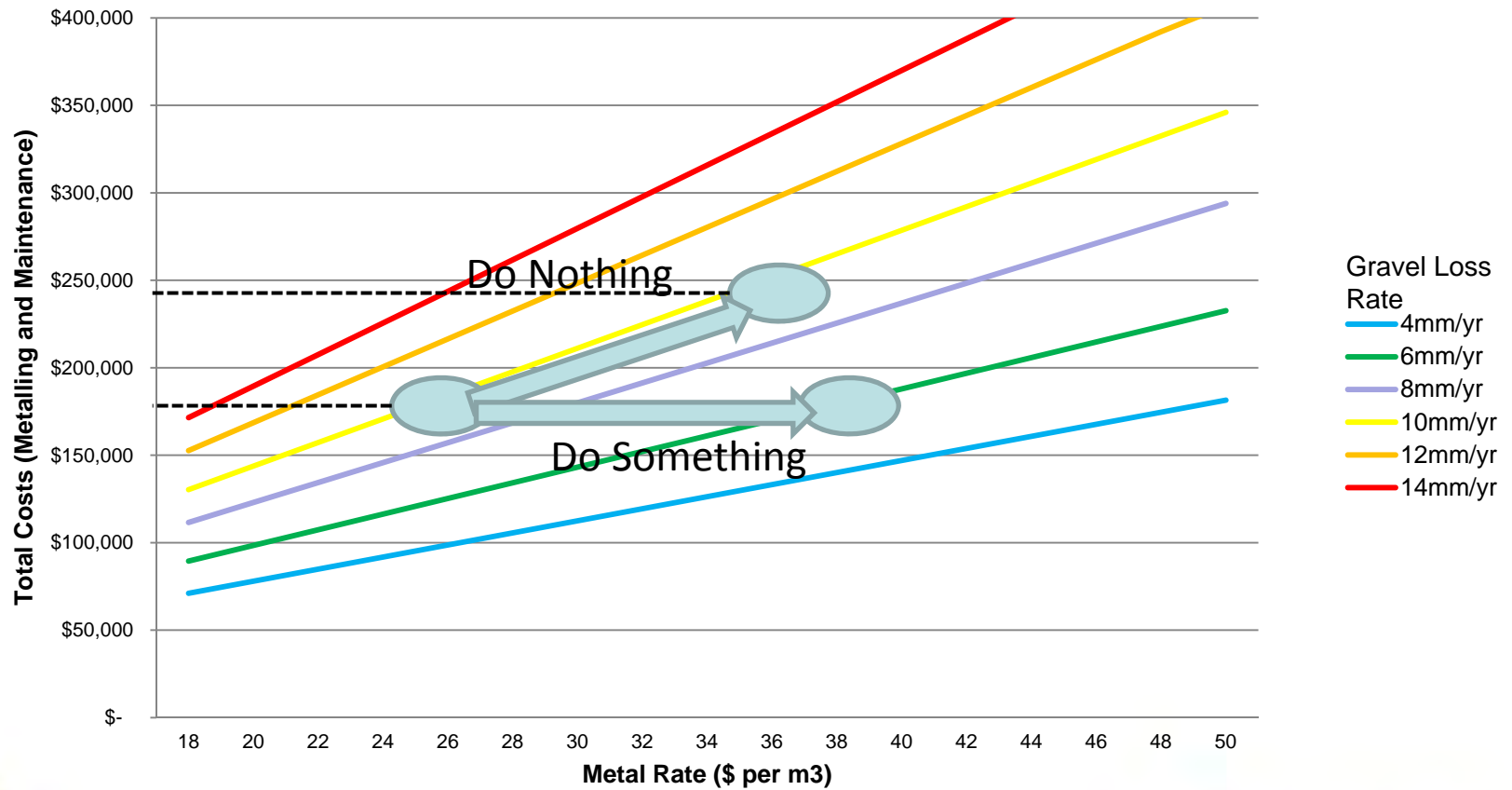
- 750km unsealed roads, logging, dairy + lifestylers
- Historically 38,000m<sup>3</sup> of metal placed per year (ave 13mm depth across entire network)
- Annual metalling budget cut from \$1.2M to \$0.9M
- 'Opportunity' to smarten up



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# Why Change?

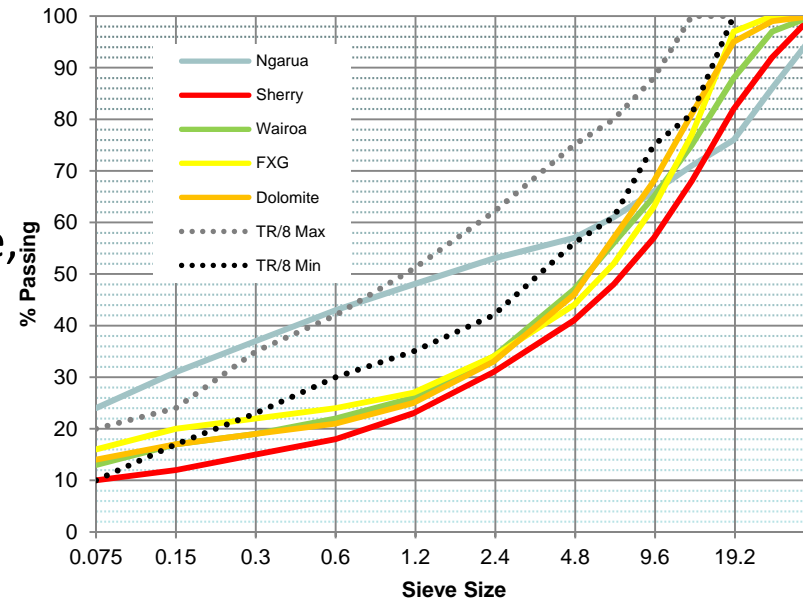
Unsealed Pavement - Whole of Life Costs per km (40 years, 6% DF)



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# What Are We Doing?

- Try things! New sources, techniques
- By-products (dolomite/lime production)
  - Used successfully close to source, what about further away?
- Minimise costs
  - Cartage distance
  - Partnering with maintenance contractors, backloading, shared benefits
- Measuring loss, and other benefits
- Examples



# Quail Valley Road



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# Trass Valley Road



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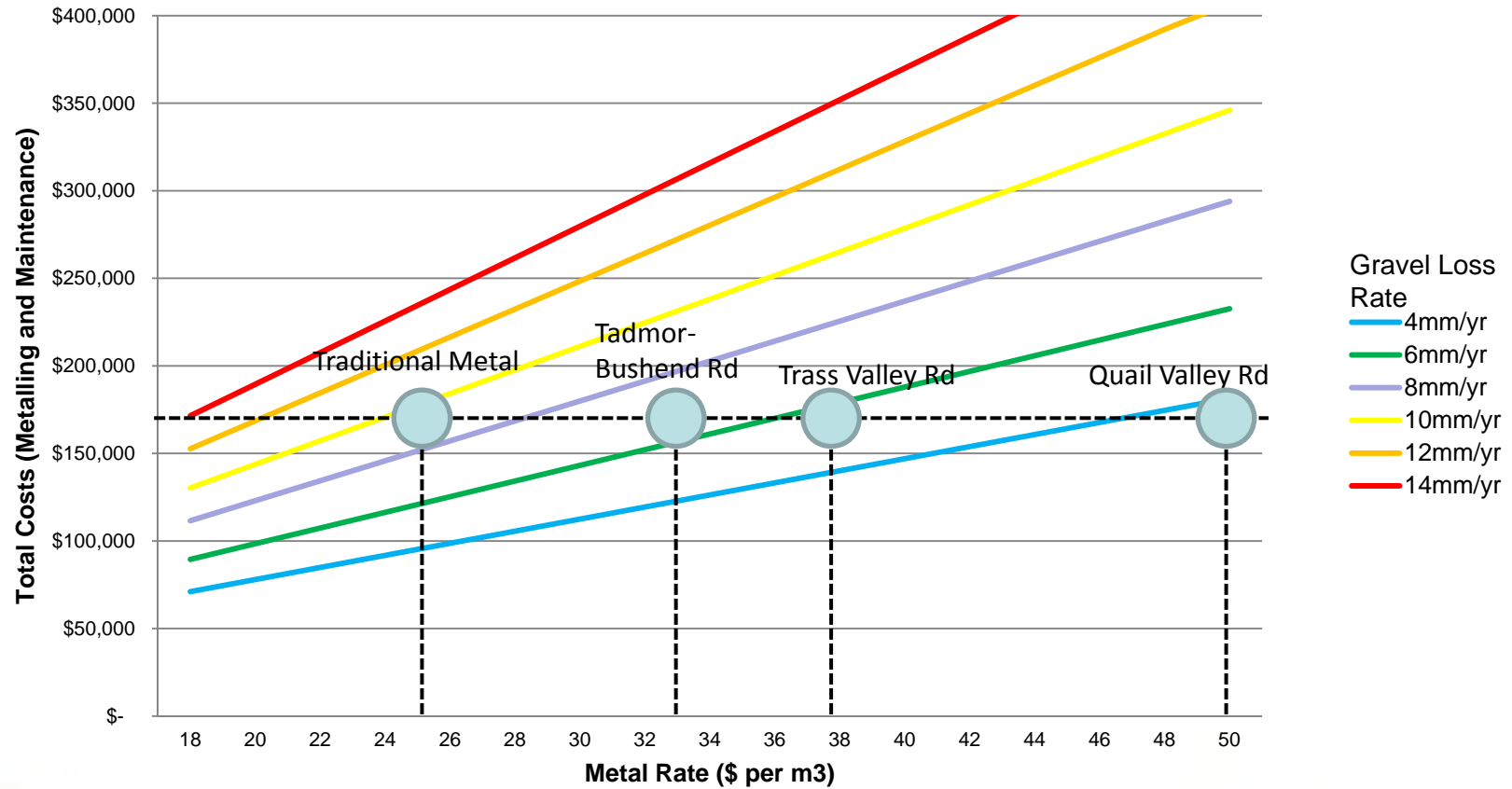
# Tadmor-Bushend Road



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# Efficiency Limit

Unsealed Pavement - Whole of Life Costs per km (40 years, 6% DF)

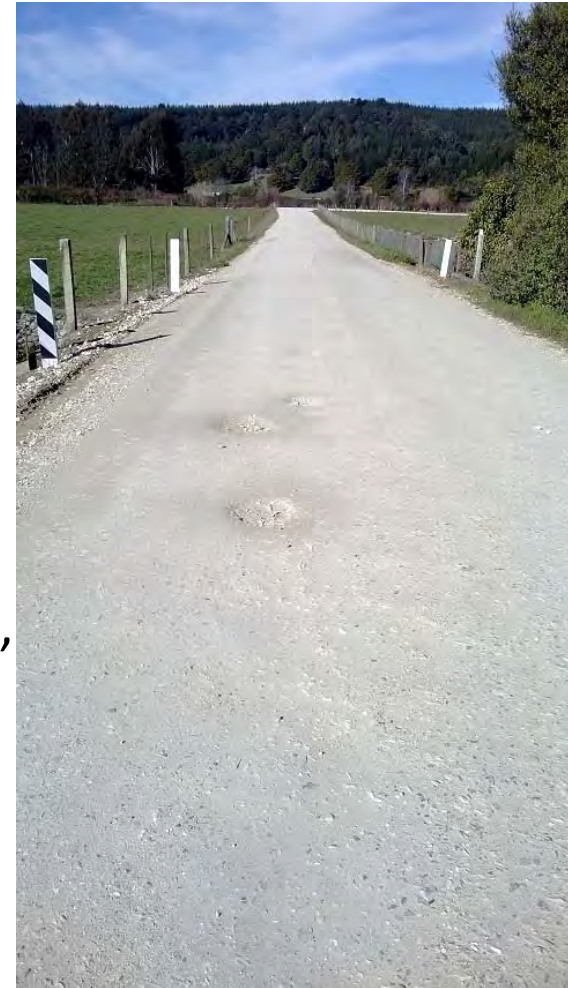


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# Some Initial Findings

- Less maintenance
- Less dust
- Crossfall critical >6%
- Product-Specific Construction Methods, eg
  - Layer thickness
  - Best results when very wet during construction
  - BUT needs good drying weather to 'bake'
    - avoid winter construction
- By-product or premium product?
- Customer demand



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# Progress & To do List

- Monitor performance
  - Understand gravel loss
  - Maintenance issues
  - Real whole of life cost comparisons
- Continue to develop and secure sources
- Refine Site Selection Criteria
- See you in a few years!



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# Acknowledgements

- Fulton Hogan Nelson



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