



Manitoba

November 6, 2018





List of Attendees from your agency

Ryan Thompson – Asset Management Engineer

Andre Dupuis – Surfacing Program Manager



Where is Manitoba?



Network

- 8 100 km Bit (~5000mi)
- 4 100 km AST (~2500mi)
- 350 km Concrete (~200mi)
- 4 000 km Gravel (~2500mi)



Top 10 Regions Lonely Planet 2019!





Themes for Agency Presentations



- How have the new FHWA pavement performance targets affected your agency's approach to preservation?
 - Not subjected to FHWA targets.
 - Have internal targets, not legislated or public, somewhat used to help select projects.
 - Envious of U.S federal legislation and focus on asset management.



Themes for Agency Presentations

- How does pavement preservation fit within your agency's overall asset management plan?
 - Allocated annual \$\$ for chip seal and micro-surfacing. ~10 to 15% (\$30 to \$35M) of total road budget.
 - Route and Seal budgeted to paving projects 2 to 3 years post construction.
 - Preservation seal, small amount not allocated every year.
 - Trending towards more thin lift overlays, currently not many.
 - Overall projects are driven by poor condition, geometric deficiencies and loading restrictions.
 - Hopeful for change as we have more automated data and move to a more advanced PMS.



Themes for Agency Presentations

- Best practices or new projects related to pavement preservation
- Compared to other jurisdiction large focus on micro-surfacing.





Micro-Surfacing in Manitoba

- Started with short trial in 2005
- 2009 ~ 440 lane km (300 lane mi)
- 2013 ~ 700 lane km (435 lane mi)
- Have stayed close to 2013 levels in recent years.



Micro-Surfacing in Manitoba

- Target roads with some rutting typical 8mm to 12mm. (5/16" to 1/2")
- Ideally good ride, but some low volume roads with poor ride.
- Rut pull followed by top coat.
- ISSA Type III specification. 100% passing 3/8".



Micro-Surfacing in Manitoba



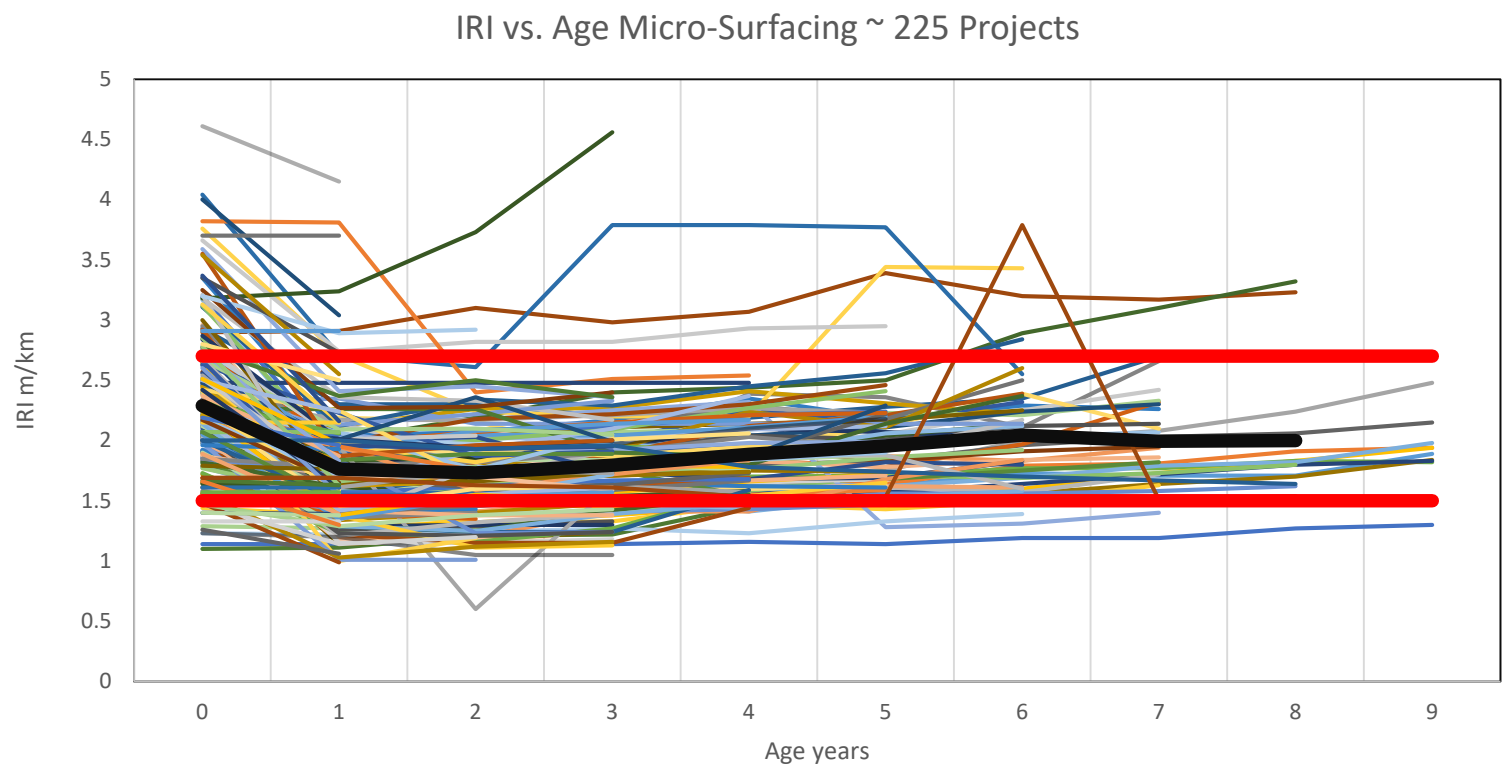


Micro-Surfacing in Manitoba

- Cost \$6 to \$7.50/m²
- Compared to \$15/m² mill and fill in metro region \$22/m² in rural.
- Expensive to mobilize asphalt plant in rural areas for mill and fill projects.
- Micro-surfacing provides good cost benefit.



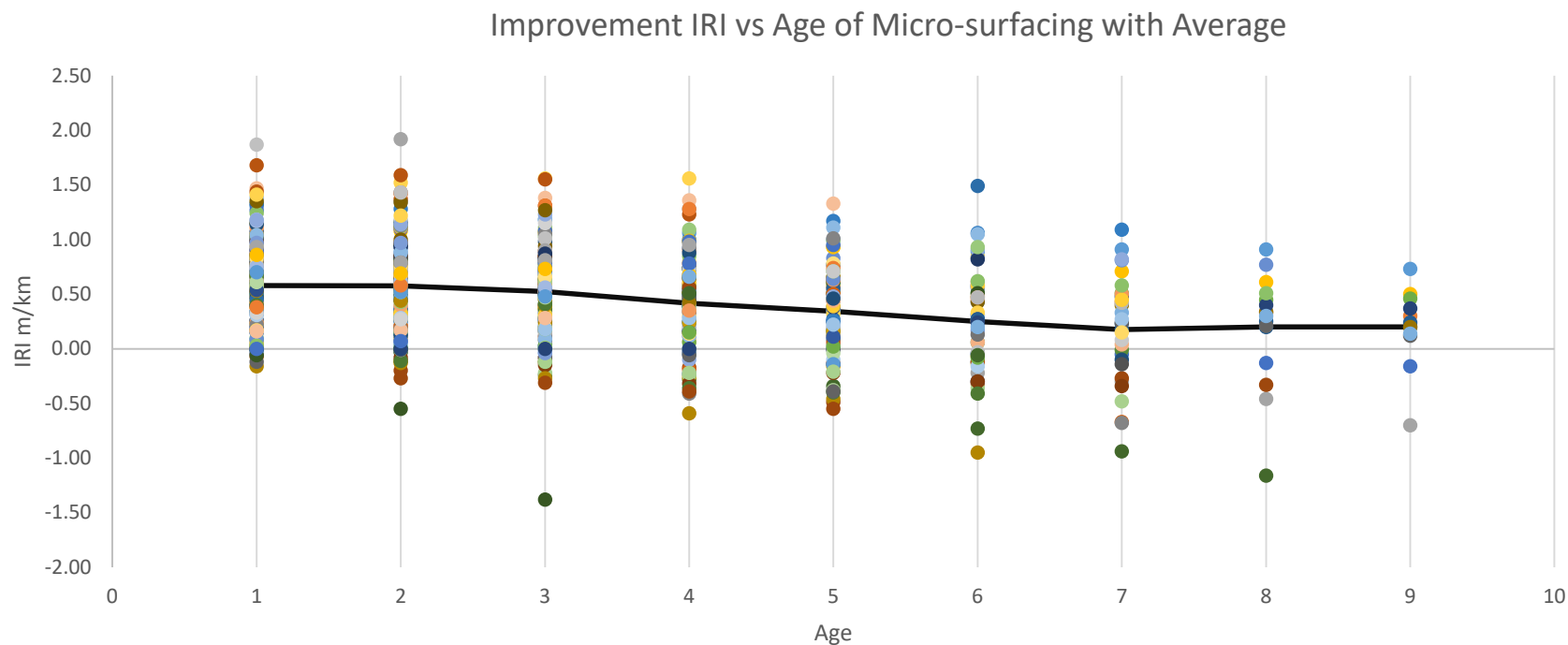
Micro-Surfacing Performance



95 in/mi = 1.5 m/km
170 in/mi = 2.7m/km

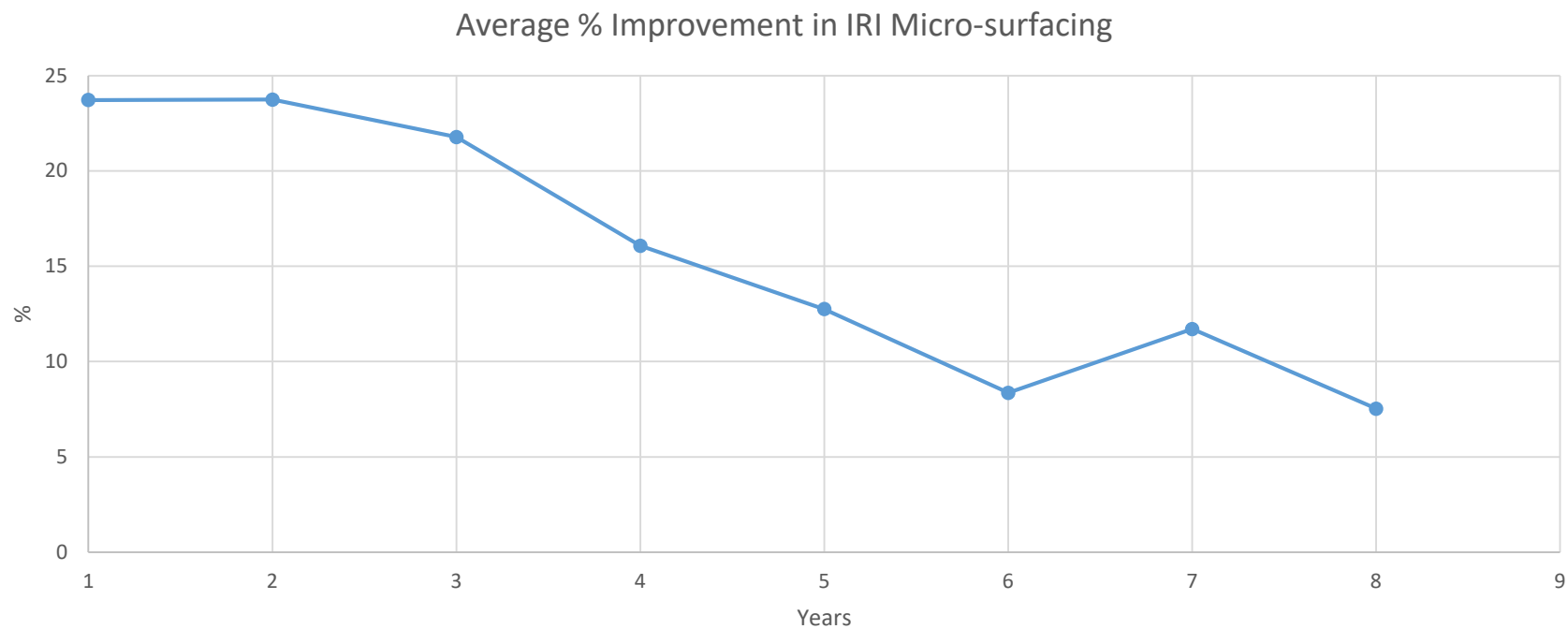


Micro-Surfacing Performance



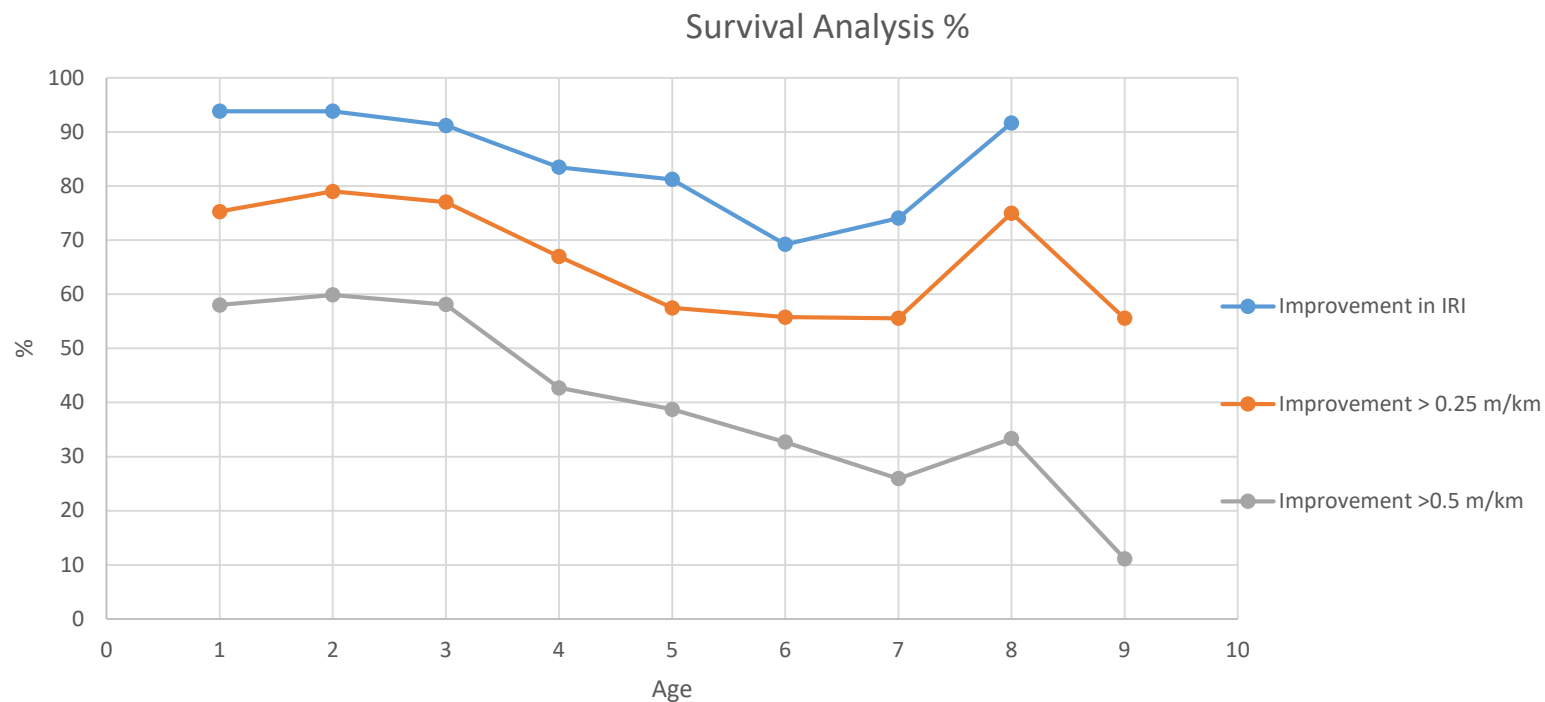


Micro-Surfacing Performance





Micro-Surfacing Performance





Micro-Surfacing Performance

- 24% average improvement IRI after 1 year
- 12% average improvement IRI after 5 years
- Tightens cracks, slows deterioration
- Fills ruts, prevents water ponding
- Have done 3 projects second treatment after 10 years. Good success so far!
- Good cost benefit compared to mill and fill especially in rural areas with low volume.



Questions?