

## **Potential Savings Using a Risk Assessment Approach to Prioritise Treating Flushed Surfaces.**

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This risk assessment approach for prioritising intervention on flushed priority “A” sites is for chip seals on straight ( $\geq 800\text{m}$  radius curves), and flat sections of roads (0-4.9% gradient).

The specification for state highway skid resistance management (T10) allows for engineering judgment to be made on low risk sites e.g. straight, flat, low demand roads on flushed sites as defined in T10. Past experience has shown that the engineering judgement applied to assessing the risk on flushed priority “A” sites can vary significantly across the different state highway networks.

Generally, “inspecting” engineers have been overly conservative in assessing these low risk flushed sites which has resulted in unnecessary treatment being carried out therefor cost.

The Skid Technical Advisory Group (STAG) commissioned a research project to identify the actual risks for skid resistance related to flushing on low risk sites of the SH network and develop a process for “inspecting” engineers to follow to ensure a consistent approach to treating low risk flushed sites.

Six SH networks of varying geographical characteristics and demand were chosen for the analysis.

The outcome of the research and analysis (10 years of wet road crashes on the six networks) is:

- wet road crashes were 6.7 to 15.4 times greater on flat curves than on flat straight roads
- And 3.8 to 10.6 times more likely on gradients than on straight flat roads.
- Furthermore after removing non- “loss of control wet road crashes” (LOCWR) from the analysis where flushing may have been the cause the risk factor became much less. In fact there were only a handful of LOCWR crashes where flushing was the main cause and only on longer site lengths ( $>70\text{m}$  of continuous flushing).

The paper outlines a process for inspectors to follow for prioritising intervention on flushed priority “A” sites on straight flat roads.

Furthermore the process will be useful in determining the amount of treatment for flushing the contractor is responsible for (contractors cost) and the amount the Principal is responsible for (Principals cost) on any given inspection length.

By following this risk assessment approach it is expected that there will be significant savings by reducing the amount of treatment to flushed sites on flat straight roads resulting in more funds available to address higher risk safety issues.