

# **Wet Weather High Visibility Linemarking Trial**

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Insert abstract text in this format to a maximum of 300 words, 12 point, Arial font, left aligned, single spacing, etc. Visibility of conventional pavement markings in wet conditions is often significantly reduced as the coating of water which covers traditional glass beads in markings during times of heavy rainfall has the effect of an optical lens which changes the refraction of light so that it is no longer returned to the driver. This reduced visibility causes the driving task to be more difficult because drivers have less tracking information and guidance along the roadway.

The importance of the issue is supported by crash data analysis which showed that 20% of the total crashes on Queensland's state-controlled roads in the last five years occurred on sealed wet roads. 16% of crashes occurred when it was raining and 9% during dark conditions.

The Queensland Road Safety Action Plan 2013-15 included a priority action to 'identify and trial innovative safety engineering treatments to further increase visibility of road markings in heavy rain'. To meet this action and find an effective solution to this ongoing road safety problem, Queensland's Department of Transport and Main Roads (TMR) has undertaken a Wet Weather High Visibility Pavement Marking Trial. The project aims to improve the availability of proven and effective road-marking systems in wet weather.

This paper describes the selection, implementation and evaluation of several innovative pavement marking products used in the trial. The trial was undertaken at sites that had experienced a high rate of out-of-control, run-off-road and head-on wet weather crashes. Performance measures including wet retroreflectivity have been monitored and evaluated. Products are also being monitored and evaluated on their road safety benefits, with wet-weather-related crash rates analysed and compared before and after the installation of the new pavement markings.