

# State Highway Stormwater Sensitivity Project

## INFORMATION SHEET



NZ TRANSPORT AGENCY  
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## The study

From late 2010 to May 2011, the NZ Transport Agency undertook a study to test whether the macroinvertebrate community index (MCI) could be used to assess the long-term impacts of stormwater run-off from the state highway network on water quality in New Zealand streams.

The MCI assesses how different families of insects that live in stream environments respond to pollution. This measures the environmental health of streams.

The team trialled six sites in Kapiti, Upper Hutt and Warkworth. The sites needed to be:

- near state highways which had the potential to produce enough contaminated run-off
- small enough to not be substantially diluted due to a high water flow
- not subject to contaminants from the stream's source
- streams where most of the contamination comes from state highways
- streams which do not have urban or agricultural sources and ideally have stony streambeds rather than soft bottoms.

## The results

The study found that five of the six streams monitored showed little evidence of being affected by stormwater run-off from the nearby state highway. One site was found to have some change to the macroinvertebrate community.

The reasons why there was very little effect from road run-off is because of low vehicle emissions from the generally smooth flowing traffic and vegetated roadside drains, which minimise the amount of run-off that can pass through to streams.

## What next

Because the trial found stormwater run-off had very little effect on macroinvertebrates, the NZTA decided it will not roll out a nationwide monitoring programme.

For more information please phone Craig Redmond on 03 964 2895 or email [environment@nzta.govt.nz](mailto:environment@nzta.govt.nz).

A copy of the full report is available on the stormwater management page of the NZTA website <http://www.nzta.govt.nz/resources/stormwater-management/stormwater-management.html>



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