

Mount Maunganui - safe and accessible streets for everyone

Safe System case study



Everyone who uses streets and roads in Aotearoa New Zealand should be able to choose a transport option that best fits their needs from a variety of safe and accessible options. Safe and appropriate speeds will reduce stress for road users, including drivers and passengers, and help people feel safer to walk, bike, scoot or travel with children.

This is because safe speeds make it safer and more comfortable for people biking and driving to share the road. They also make it easier to cross the road. Research shows that drivers travelling at safe speeds are significantly more likely to yield to.

More people die on Aotearoa New Zealand roads per head of population than in similar countries

Vehicle speed is a major factor in the ability of people to safely and easily travel around towns and cities and on rural roads and highways. Establishing safe and appropriate speeds on all types of road will:

- help people live more active lives
- help people safely take their preferred transport option
- support the country's emissions reductions goals
- reduce the number of fatal and serious injuries, which is far too high.

International best practice is that 30km/h is the desirable Safe System speed on roads and streets where high numbers of active road users, especially children, are present or desired. A pedestrian struck by a motor vehicle at this speed has a strong chance of surviving and avoiding a serious injury. The probability of a pedestrian being killed rises as impact speed increases.

The probability approximately doubles between 30km/h and 40km/h and doubles again from 40km/h to 50km/h.



Mount Maunganui

In August 2011 Tauranga City Council implemented a 30km/h speed limit zone in Mount Maunganui, The speed limit reduction was for all streets at Mount Maunganui north of Banks Avenue.

The zone included the upper end of Mt Maunganui encompassing approximately 0.5 km² area of commercial (mainly retail) and residential land uses.

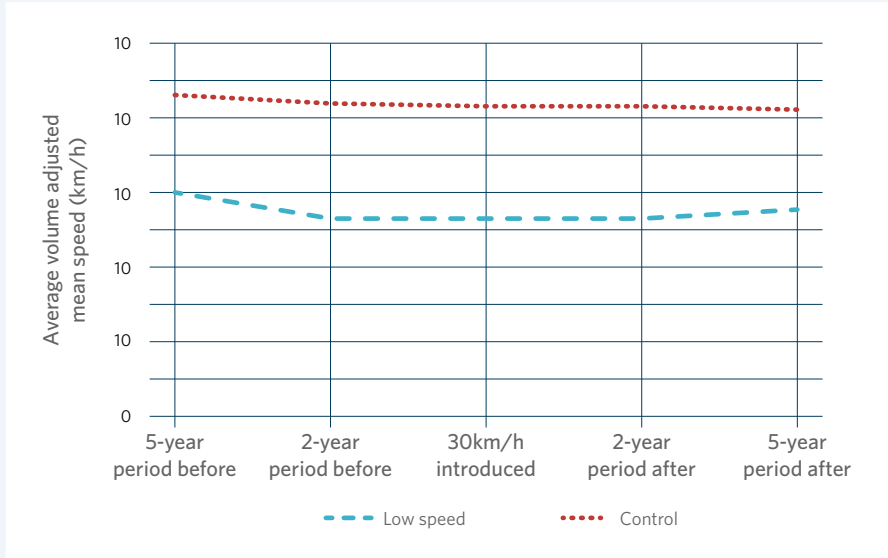


Figure 1: Mount Maunganui mean speeds (averaged by traffic volumes across sites) with respect to treatment

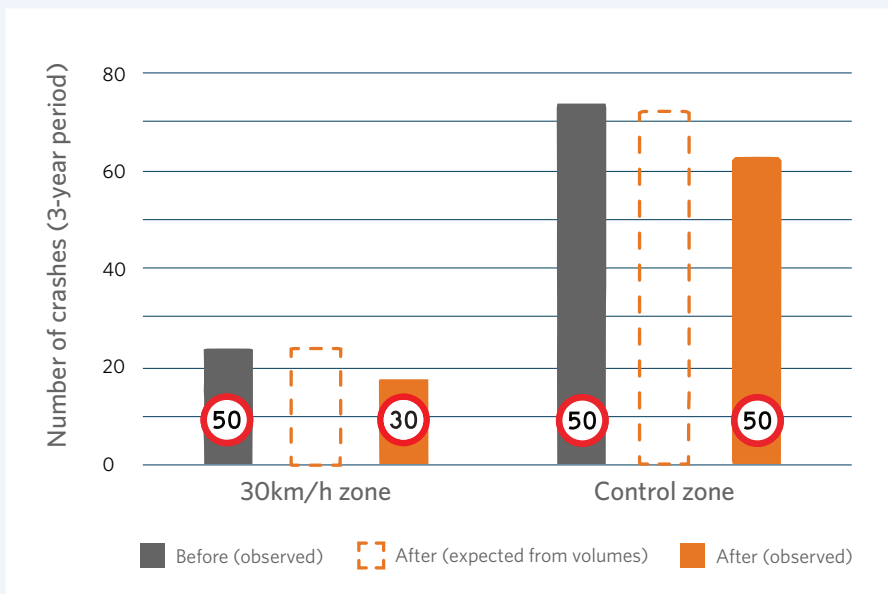


Figure 2: Crashes in Mount Maunganui before and after 30 km/h zone introduced, compared with control zone and expected crashes based on volume changes

Speeds

The analysis undertaken compared the Mount Maunganui zone with neighbouring control zones traffic speeds, traffic volumes and crashes analysed before and after the treatment, for analysis periods of two, three and five years.

Traffic volumes increased in the 30km/h zone by +6%, compared with a 12% decrease in the adjacent control zone (five-year analysis periods were used).

Crashes

Crashes were analysed in 3 year periods before and after the treatment (excluding one month pre-implementation and three months novelty period), and in relation to traffic volumes (exposure). In the 30 km/h zone, the observed number of crashes after implementation was 24% lower than the expected number of crashes (derived from the number of crashes before and relative volumes before/after). In the control zone, the observed number of crashes after implementation was only 13% less than expected. These findings were not statistically significant.

While the crash data did not yield statistically significant results, a reduction in crashes was exhibited and it appears that implementing the 30 km/h speed zone has had a positive effect on traffic safety, further to that experienced in the neighbouring control zone, and despite traffic volumes increasing slightly.



In summary

While the crash data did not yield statistically significant results, a reduction in crashes was exhibited and it appears that implementing the 30km/h speed zone has had a positive effect on traffic safety, further to that experienced in the neighbouring control zone, and despite traffic volumes increasing slightly.

Key tips for practitioners

- It is necessary to have data on traffic volumes and speeds at multiple locations before and after the treatment is implemented, to conduct a meaningful statistical analysis.
- Crash analyses may indicate trends, but are unlikely to yield statistically significant results due to relatively low sample sizes and the rare and random nature of crashes; it is therefore important to assess other measures, such as traffic speeds and volumes, as well.
- If the road environment already appears lower than the posted speed limit, the treatment may not achieve a noticeable decrease in speeds – this would simply be a sign that the appropriate behaviour has been formalised.



For more information:

- [Mt Maunganui speed and safety review](#)