

## SH8 Burkes Pass speed Review Consultation Submission – October 2019

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**NZTA Proposal: to reduce the existing 80 km/h speed limit in Burkes Pass to 60km/h.**

### Submission summary:

**A 50km/h limit is necessary for our specific high-risk environment - 36,000 pedestrian crossings per year with limited highway visibility and arterial, heavy traffic. Many pedestrians cannot complete crossing the road safely when the road appears clear just before a vehicle travelling at 60km/h becomes visible ( Appendix 1- study of time and speed).**

**Vehicles from the Tekapo direction make a sudden and unexpected downhill entrance to the pedestrian area at high speed, with few visual clues to warn them that the township is there. While the Trust welcomes the proposed reduction from 80 km/h to 60 km/h our evidence and observations show that this is not slow enough for our circumstances, and it is essential for earlier signage and effective measures from the NZTA Speed Management Guidelines 2016 Tool Box to support either 50 or 60km/h limits. This includes;**

- **speed limit ahead sign,**
- **a graduated reduction from further out from the existing signs,**
- **enhanced planted thresholds,**
- **coloured road surface across the threshold,**
- **permanent speed indicator detector,**
- **highway and road based technology.**

### Exceptional High-Risk Factors in Burkes Pass Township

- **Vehicles from the Tekapo direction make a downhill entrance at high speed and suddenly enter the pedestrian area with few visual clues that the township is there.**
- **The highway has a marked curve in the centre of the town with limited visibility and significant camber that encourages speed. Easy access parking in the layby outside the toilet means that truck and trailer units and cars with boat trailers/campervans/caravans find it easier to stop here than at Tekapo and can completely obstruct the already limited view of pedestrians.**
- **Significant pedestrian traffic across the highway;** there is a layby on either side of the curve for drawing off from the highway and parking, together with attractions on both sides of the road. People walk between the Three Creeks shopping complex/coffee caravan/historic church on one side of the road across to the public toilet, Heritage Walk, and motels on the other side. **The door counter on the new public toilet showed approximately 18,000 users in the year to September 2019, most visitors walk across the road twice (there and back to their vehicles parked on either side), so at least 36,000 crossings occur, an indicator of both foot traffic and vehicle movements from the laybys.** This is a reasonably accurate estimate - a few users do not cross the road such as heavy truck drivers in transit, however not all visitors use the toilet and do not get included in the count. Visitor accommodation is on both sides of the highway.
- **Pedestrians cannot cross the road with any margin for safety given the speed and limited visibility of vehicles (see Appendix 1: Pedestrians crossing at Burkes Pass Township – An analysis of time and speed).** At 60 km/h, a fit pedestrian is only just reaching the other side (or has to run

part way) before the vehicle reaches them, at 50 km a less mobile person has no margin of safety. Survivability of a pedestrian-versus-vehicle accident is greatly enhanced by a reduction in speed.

- **High variability in vehicle speed through town is a major risk.** Large numbers of cars and trucks travelling at 80 km/h plus, are frequently encountering vehicles moving slowly, doing U-turns (60% of Three Creeks visitors do this) and stopping in the middle of the road. This is compounded by the significant camber causing uncertainty by obscuring the entrance to the layby at the popular Three Creeks complex.
- **An intersection with the Rollesby Valley road** at the northeast end of the curve has frequent traffic to the farms and homes along its length. Turning in or out of this corner is hazardous due to; limited visibility, significant variability in traffic speed, the proximity to the Three Creeks layby entrance and distracted tourist driver behaviour. A new side road into a recent subdivision has been built at the northern threshold and potential for another was advertised up near the cemetery last year.

Wider considerations;

- The small township is bisected by Highway 8, the arterial route to major tourist hotspots such as Lake Tekapo, Mt Cook, Wanaka and Queenstown. Tourism is growing exponentially and changes need to incorporate planning for the future.
- The town has become a destination rather than just a through road.
- High pedestrian numbers and slow vehicles mix with high speed and heavy vehicles, none of which is apparent when looking at a map.
- **Insufficient development (in the physical sense) has been cited as a reason for not proposing a 50 km/h limit, however major regional tourism development means large numbers of pedestrians are exposed to extreme hazard when crossing this segment of road.**

Past measures to enhance safety have NOT worked for a number of reasons;

- realignment of a corner near the cemetery on the approach from Tekapo, and road seal widening through the township has enabled higher speed.
- the thresholds planted/ maintained and funded by the Burkes Pass Heritage Trust/residents for the past 16 years (approved by NZTA) have taken a long time to mature in the alpine environment and recently some of the plantings were damaged/removed by creation of a pull-off lane to a new subdivision thus removing its affect on traffic slowing.
- the speed indicator detector, present for only a few weeks each year, is too close to the town centre to allow motorists time to react effectively.
- enforcement is not effective due to the short distance between 80 kph speed signs.

### **Additional Support is Essential;**

**A 50 kph limit is more suitable for our exceptional and particular circumstances and 60 km/h, while an improvement, is too fast. The Trust requests engineering solutions, to support any speed reduction.** The Speed Management Guidelines 2016 Toolbox and Appendix contain a number of options that are relatively low cost and could be used here to make the speed safer and more appropriate for this road. They are not listed in order of priority :

1) **Effective signage warning must be given on the approach to the township** to indicate the limit and prepare the driver to react. This could be a graduated speed reduction, a speed limit ahead sign (AS6) as there is a significant drop in speed required, or an electronic hazard warning sign.

2) **Enhance the effectiveness of the existing planted thresholds (ES2)**, by introducing more visible, vertical elements e.g. hardy evergreen trees such as mountain beech within the guidelines of frangibility etc., mulch and rabbit protection to enable plants to thrive in this harsh, growing environment, and additional planting to compensate for that damaged or removed this year. The Trust has established and provided this for the past 16 years (with NZTA approval), perhaps NZTA could contribute funding for this in conjunction with the Trust.

3) **Coloured surfacing across the road surface in the threshold area, in conjunction with a high friction material(SU2).** This would modify driver and road user behaviour by reinforcing the fact that they are entering a different road environment. Retain the flush medians.

4) **Paint the road speed on the road surface.**

5) **Install a permanent Speed Indicator Detector (AS4)** and trial this initially on a trailer in different positions to calibrate and ensure its effectiveness.

6) **Highway and road based related technology** to provide drivers of intelligent cars using emerging technology that provides information on upcoming road conditions and helps them manage their speed.

Ref: <https://www.nzta.govt.nz/assets/Safety/docs/speed-management-resources/speed-management-toolbox-and-appendices-201611.pdf>

## **Appendix 1:**

### **Pedestrians Crossing at Burkes Pass Township;**

#### **An analysis of time and speed in support of reducing the speed limit to 50 km/h**

**by Graham Batchelor**

**A pedestrian standing on the edge of the seal can first see a vehicle when it is about 180m away.**

This was observed with a person standing on the seal edge near the public toilet. Sight of a vehicle coming down the hill is limited due to the horizontal curve in the road.

At the other crossing at the church, visibility is limited for vehicles coming down the hill because of the vertical curve in the road.

**The time for a vehicle to travel 180m is:**

- **8 s at 80km/h,**
- **11 s at 60km/h**
- **13 s at 50km/h**

This was calculated based on the vehicle speed and taking the distance of 180m.

**The time for a pedestrian to cross the road varies between:**

- **9s for a fit and able person to about**
- **14 seconds for an older or less mobile person.**

This time was measured from seal edge to seal edge between Three Creeks and the public toilet. This crossing location has a high usage. The toilet door count of approximately 18,000 visits a year gives an indication of the number crossing as many of them cross from Three Creeks to the toilet and back.

**Comparing this data:**

- With a 60 km/h approaching vehicle - a fit and able pedestrian could cross the road with 2 seconds to spare but an older, slower pedestrian has no chance of crossing safely.
- With a 50 km/h approaching vehicle - an older, slower pedestrian can still not completely cross the road before the vehicle has reached them.

This assumes that there are no vehicles parked in the line of sight (in the layby area) which is often not the case.

## Speed Limit and Actual speeds

There is evidence that a significant number of vehicles at Burkes Pass travel 10 km/h faster than the speed limit. Taking this into account:

- With a speed limit of 60 km/h a significant number of vehicles will be travelling at 70km/h. This would be uncomfortable for a fit person to cross and dangerous for a slower, older person.
- With a speed limit of 50 km/h, a significant number of vehicles will be travelling at 60km/h and as shown above a slower, older person has no chance of crossing safely.

## Conclusion

**A reasonably fit and alert person could probably cross the road safely with vehicles travelling at 60km/hr. This would require a speed limit of 50km/h because a significant number would travel at 60km/h.**

**An older person could NOT cross safely even if the actual vehicle speed is 50 km/h. A lower speed limit than 50km/h is required and/or an engineering solution would be needed to allow older people to cross in safety.**

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