

# Smarter ways of prioritising communities for safety improvements

Auckland Transport delivers targeted transport network safety improvements in a number of Auckland communities each year. This research developed a robust, proactive risk-based prioritisation method that identifies communities where the greatest road safety benefits might be achieved.

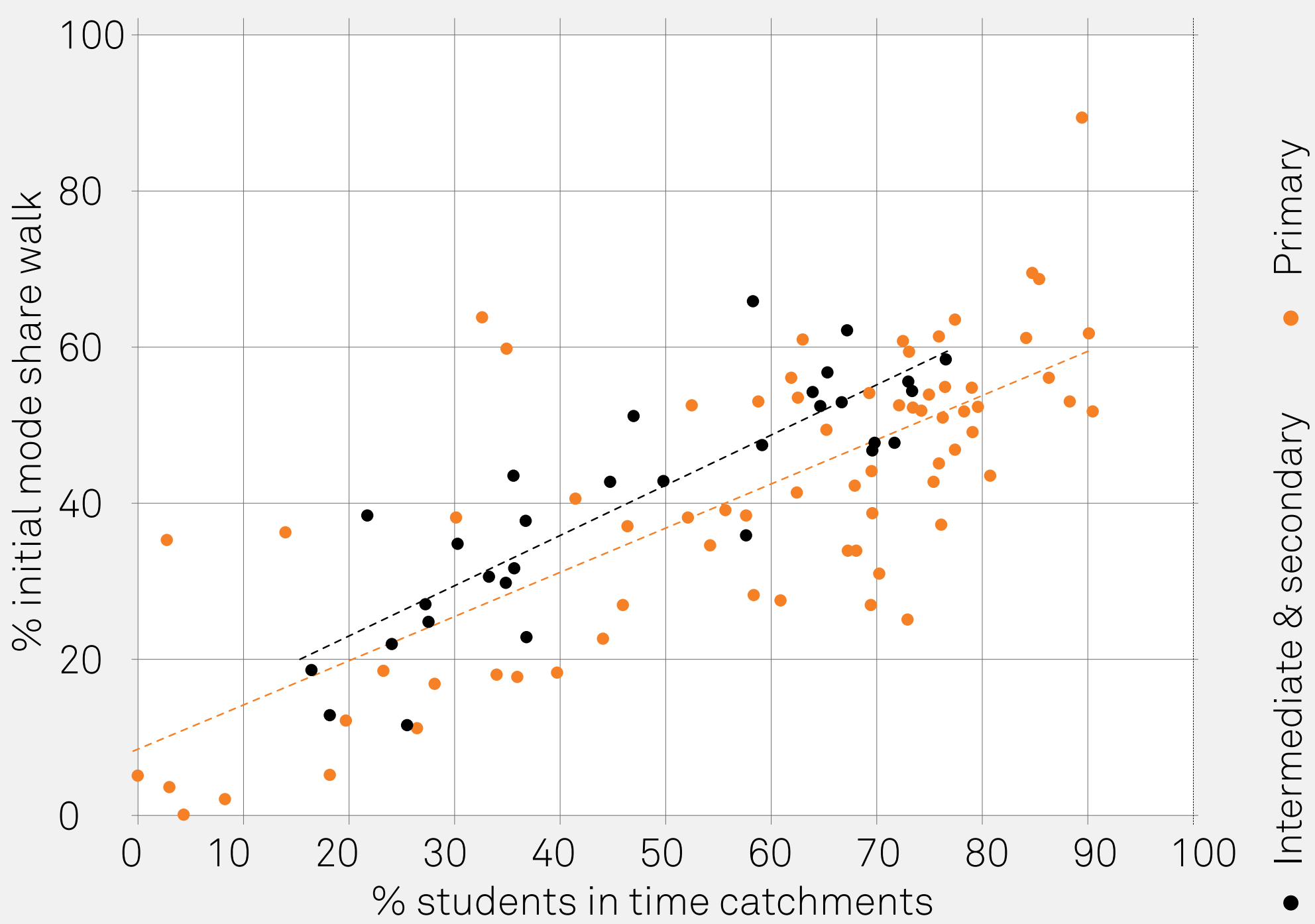
The analysis centres on schools, which are a key focal point of any community. The spatial distribution of schools means that the majority of urban Auckland is considered in the analysis.

### Risk-based approaches

A proactive approach identifies community risk profiles. The rise-based approach allows potential issues to be identified before problems manifest. This research used both **estimated** and **predicted** risk assessments.

### How students travel

Analysis of school travel surveys shows travel time is the strongest predictor of active mode share. It is important that students within a walkable distance are able to do so safely. Accessibility-based time and risk catchments are used as the analytical basis for the prioritisation.



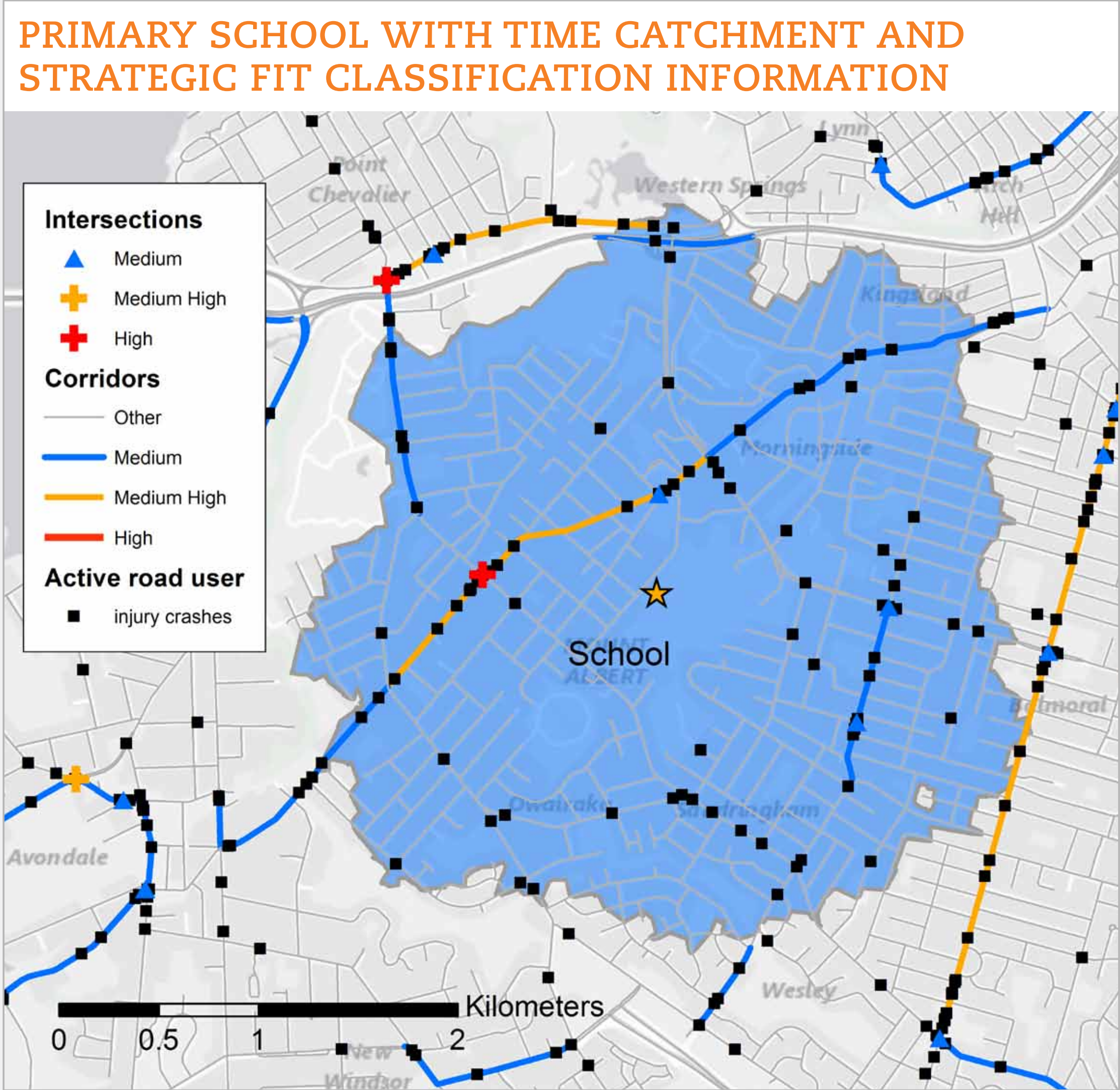
### Identify risk category

The **estimated risk** in the time catchment of each school was used to classify communities as either **High, Medium** or **Low** Strategic Fit. Two assessment criteria for death or serious injury (DSi) risk were used:

- Overall risk in time catchment
- Clustered risk around intersections/corridors

	Overall	Clustered
High	> 2 est. DSi	Any high risk intersection or >100m high risk corridor
Medium	> 0 est. DSi	Any medium risk intersection or >100m medium risk corridor

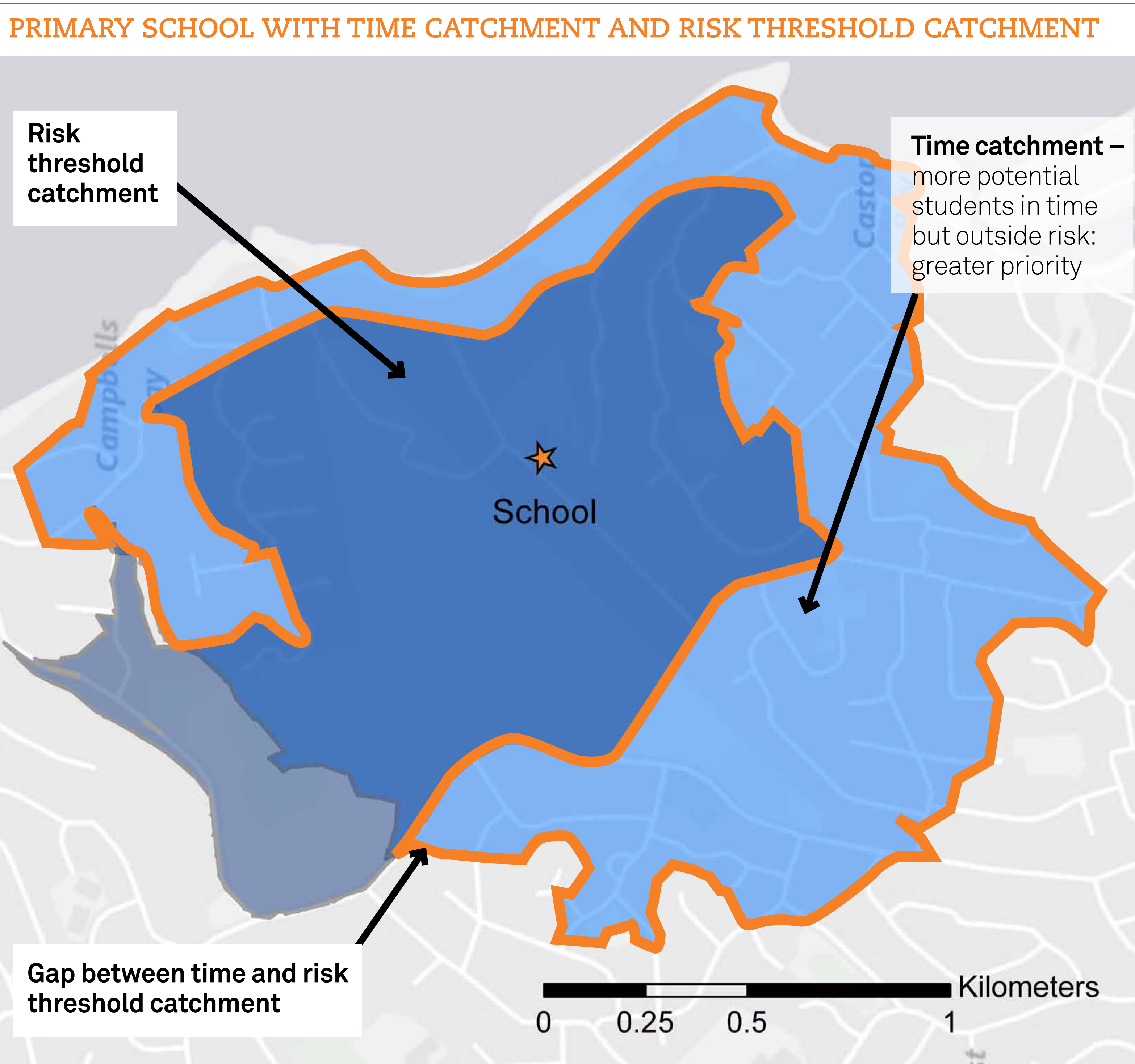
Communities not meeting either of the above criteria were classified as Low Strategic Fit.



This community is categorised as High Strategic Fit due to intersections and corridors located within its time catchment that represent high clustered risk and the number of estimated DSi that represents high overall risk for active road users.

### Prioritise by improvement potential

Communities within each Strategic Fit category were prioritised on the potential to increase the number of students in the time catchment able to reach the school within a defined risk threshold. Communities were prioritised based on those schools with the greatest difference between number of students in the time catchment but outside the risk threshold catchment



**Contact Information:**  
**Paul Durdin**  
Director  
Abley Transportation Consultants  
Christchurch Office  
+64 3 367 9004  
paul.durdin@abley.com

**Courtney Groundwater**  
Senior Transportation Engineer  
Abley Transportation Consultants  
Auckland Office  
+64 9 281 2178  
courtney.groundwater@abley.com

**Stacy Rendall**  
Transportation Researcher  
Abley Transportation Consultants

