

Report No:	RESC11-10-05
File No:	B953
Date:	13 October 2011
Decision Required	

REPORT SUMMARY

Report to: Engineering Services
Meeting Date: 27 October 2011
Report Author: Steve Elkington, Transportation Projects Engineer
Subject: **Proposed Speed Limit Changes – Aporo Road and Surrounding Road Network**

EXECUTIVE SUMMARY

With the opening of the Ruby Bay Bypass, State Highway 60 the former coastal highway was handed over to Council in late 2010. The former state highway carried approximately 8000 vehicles per day where now it carries approximately a quarter of this volume.

With the opening of the new bypass residents alongside the old state highway as well as Schools and the Police requested a review of the current speed limits. In August of this year a report was presented to the committee requesting approval to consult on the proposed speed limit changes on Stafford and Mapua Drives at Ruby Bay. This consultation is planned to occur shortly.

RECOMMENDATION/S

That the Committee approves the proposed speed limit changes for public consultation.

DRAFT RESOLUTION

THAT the Engineering Services Committee receives the report Proposed Speed Limit Changes – Aporo Road and Surrounding Road Network, RESC11-10-05 and

THAT the Engineering Services Committee approves public consultation being undertaken for the following proposed speed limits on the named roads below:

Road Name	Between	Posted Speed km/h	Proposed Speed km/h
Aporo Road	Through Tasman Village	70	60
Aporo Road	From Stafford Drive – 70/100 SL sign near Baldwin Road	100	80
Marriages Road	Aporo Road – Awa Awa Road	100	80

Mamaku Road	Marriages Road - end	100	80
Awa Awa Road	Marriages Road - end	100	80
Pomona Road	Marriages Road – 50/100 SL sign	100	80
Foley Road	Pomona Road – Awa Awa	100	80
Pine Hill Road West	Pomona Road – end	100	80
Permin Road	Aporo Road - end	100	80
Brook View Heights	Permin Road - end	100	80
Horton Road	Aporo Road - end	100	80
Williams Road	Aporo Road - end	100	80
Kina Beach Road	Aporo Road - 70/100 SL sign near Dee Road	100	80
Kina Peninsula Road	Kina Beach Road - end	100	80
Dee Road	Kina Beach Road - end	100	80
Baldwin Road	From existing 50/100 SL sign to end	100	80

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1. Purpose

- 1.1 The purpose of this report is to seek approval to proceed to public consultation on the proposal to change the speed limits on road sections between the top of the Ruby Bay Bluffs through to Tasman village.

2. Background

- 2.1 With the opening of the new section of The Coastal Highway (the Ruby Bay Bypass) in late 2010, the old section of state highway was handed over to Council ownership along with responsibility for operations and maintenance.
- 2.2 When the former section of The Coastal Highway was under the control of the New Zealand Transport Agency it carried all state highway traffic to Motueka. The traffic flows have significantly reduced to approximately a quarter since it came under Council control. The function of the road has also changed from a main commuter and commercial transport link to that of a Collector function carrying what is mainly local and tourist traffic.
- 2.3 This report covers a review of the existing 100 and 70kph speed limits on Aporo Road as well as a proposal for a local area speed limit reduction of 80kph for roads leading off Aporo Road including several that link the inland side of Ruby Bay.
- 2.4 The August 2011 report to Engineering Services Committee, “Proposed Speed Limit and Intersection Changes - Mapua Drive & Stafford Drive Ruby Bay” recommended that consultation be undertaken for a number of speed limit changes for Mapua Drive and Stafford Drive. These proposed options included lowering the speed limits on Mapua Drive to 80kph and on Stafford Drive to 60kph through Ruby Bay village and 80kph from the current 70/100kph speed limit threshold to Aporo Road at the top of Kina Bluffs.

3. Present Situation/Matters to be Considered

3.1 Comment

Since Council took over ownership of the former section of The Coastal Highway, numerous requests from residents have been received to lower the speed limits on Aporo Road.

3.2 Existing Speed Limits

The following table lists the existing posted speed limits for the roads under review.

Road Name	Location	Posted Speed limit km/h
Aporo Road	Stafford Drive to the existing 70/100 sign south of Baldwin Road	100
Aporo Road	70/100 sign south of Baldwin Road through Tasman	70
Tasman Township	Goddard Road, Dicker Road, Part of Baldwin Road	50
Baldwin Road	50/100 sign to end	100
Kina Beach Road	Aporo Rd to 70/100 sign near Cliff Road	100
Kina Beach Road	From near Dee Road to Golf Course at end of Cliff Rd	70
Kina Peninsula Road	Full length	100
Dee Road	Full length	100
Williams Road	Full length	100
Horton Road	Full length	100
Permin Road	Full length	100
Brook View Heights	Full length	100
Marriages Road	Full length	100
Mamaku Road	Full length	100
Awa Awa Road	Full length	100
Pomona Road	Marriages Road – 50/100 SL sign	100
Foley Road	Full length	100
Pine Hill Road West	Full length	100

Note: While the posted speed limit shown above is the legal speed limit this is tempered by the road alignment and surrounding environment. The operating speed is generally accepted as the Mean or 85th Percentile surveyed speeds.

3.3 Speed Warrant Surveys

Speed limits are based on the Land Transport Rule - Setting of Speed Limits 2003. This Rule requires any changes to speed limits to be first assessed by using the arithmetic/survey tool *Speed Limits NZ* to quantify what the appropriate speed limit should be. This evaluation method provides an objective and hence consistent approach to setting speed limits. However, the Rule does recognise the

need to consider each location in context of the road environment and hence some variance from the quantitative result of *Speed Limits NZ* is permitted.

- 3.4 Further to this is the minimum length over which a speed limit shall apply. However this is more relevant to where a reduced speed limit is introduced within a route or road section than for a no exit road.
- 3.5 An evaluation (warrant survey) was undertaken for Aporo Road from Stafford Drive at the southern end to the Ruby Bay Bypass at Tasman village end. The Warrant results are discussed below in Section 5.
- 3.6 Speed Limit Warrants have not been undertaken for the other roads referred to in this report.

3.7 Local Area Speed Limit Reduction Concept

An area approach to setting a blanket speed limit is considered appropriate where the roads within an area have few or no connections to a wider roading network and the road environment tends to be homogenous in both density of road side development. This includes roadway factors such as parking, pedestrian and cycle demand, geometry and function of road ie, local, collector or arterial.

- 3.8 A consistent approach to speed limits lessens confusion for the motorist.
- 3.9 When staff investigated a lower speed limit for Aporo Road a number of issues required consideration. These included:
- All side roads off Aporo Road would have a higher posted speed limit and hence would require signage to show this at every location where this occurred;
 - The majority of side roads off Aporo Road are no exit roads;
 - The speed environment along these side roads is typically around 80kph due to road widths, road geometry and type of traffic;
 - The zoning of the surrounding land is predominantly Rural 3 which over time will experience increased development and hence more on-road activity;
 - Whilst the proposed speed limit won't necessarily be supported by the results of a speed limit warrant, the appropriate way forward is to have a blanket speed limit that would cover all roads within the area. The exception would be where the existing speed limit is lower due to historical decisions or is warranted because of the increased urbanisation such as within Tasman Township; and
 - There is also a need to limit the number of speed limit changes as well as small incremental changes for example where the differential is 10kph in the case of an 80/70 or 60/50 threshold.

3.10 Crash History –

Aporo Road - There has been two serious and five minor crashes over the last two years up until when the state highway status changed to local road. This number of crashes over a short period is considered high, however it is necessary to recognise that traffic volumes were much higher in the past.

3.11 Since the road was passed to Tasman District Council there has been three crashes along Aporo Road involving drivers losing control due to speed. There has been also three crashes on the other roads in the proposed speed limit area with two involving speed and one involving a motorcycle and car.

3.12 Traffic Data

The following table provides speed survey and traffic count data for Aporo Road only. The other roads referred to above have traffic volumes of below 500 vehicles per day (vpd) with Kina Beach Road having 537vpd surveyed in September 2010.

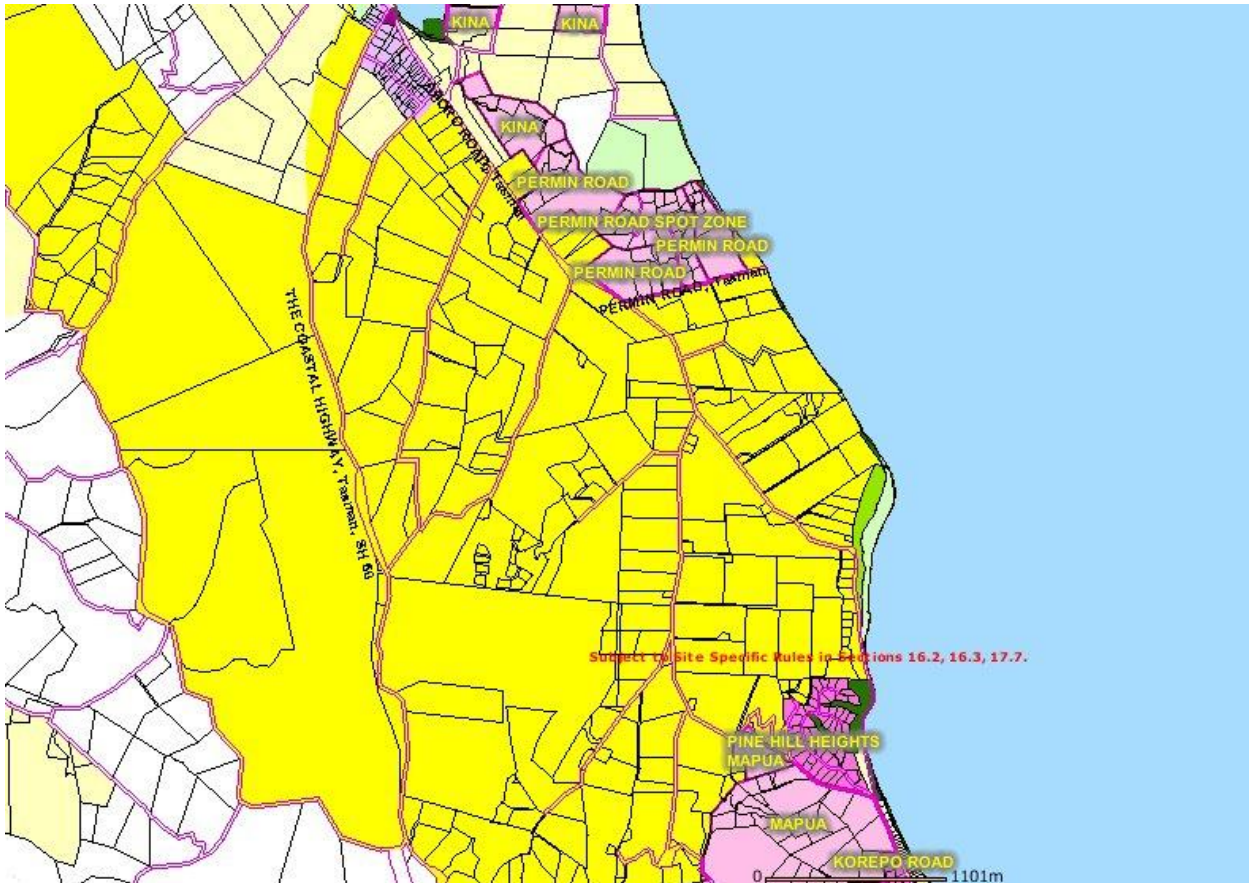
Road Name	Location	Survey Date	Existing Speed Limit Km/h	Mean Speed Km/h	85 th Percentile Speed km/h	Traffic Volume (Total of both lanes) AADT
Aporo Road	South of Williams Road	Feb 11	100	84.2	97.6	2,608
Aporo Road	North of Baldwin Road	Feb 11	70	67.4	75.6	2,608

3.13 Speed surveys have not been undertaken for the other roads referred to above at this time. It is felt that money spent to survey speeds on these roads would not be well spent, as the results would have little influence on the proposed area approach.

4. Zoning of Surrounding Land

4.1 Zoned areas of land use shown over the page are:

- Light pink areas – Rural Residential
- Yellow areas – Rural 3
- Tasman Township is predominantly residential



5. Proposal

5.1 Proposed Approach

- 5.2 Lower the speed limit on both the rural section of Aporo Road as well as through Tasman Village;
- 5.3 Local Area Speed Limit Reduction - Lower the Rural Speed Limit of 100kph to 80kph on local roads off Aporo Road which are predominantly no exit.

5.4 Proposed Speed Limit Changes

Road Name	Between	Posted Speed km/h	Proposed Speed km/h
Aporo Road	Through Tasman Village	70	60
Aporo Road	From Stafford Drive – 70/100 SL sign near Baldwin Road	100	80
Marriages Road	Aporo Road – Awa Awa Road	100	80
Mamaku Road	Marriages Road - end	100	80

Awa Awa Road	Marriages Road - end	100	80
Pomona Road	Marriages Road – 50/100 SL sign	100	80
Foley Road	Pomona Road – Awa Awa	100	80
Pine Hill Road West	Pomona Road – end	100	80
Permin Road	Aporo Road - end	100	80
Brook View Heights	Permin Road - end	100	80
Horton Road	Aporo Road - end	100	80
Williams Road	Aporo Road - end	100	80
Kina Beach Road	Aporo Road - 70/100 SL sign near Dee Road	100	80
Kina Peninsula Road	Kina Beach Road - end	100	80
Dee Road	Kina Beach Road - end	100	80
Baldwin Road	From existing 50/100 SL sign to end	100	80

6. Evaluation and Comment

6.1 Speed Limit Warrant

The following table sets out the results of a speed limit warrant undertaken for Aporo Road.

Road Name	Location	Posted Speed Limit Km/hr	Speed Limit Rule - Rating Range for Speed Limit	Survey Rating R	Proposed Speed Limit Km/hr
Aporo Road	Stafford Drive to the existing 70/100 Speed limit change near Tasman Township (Approx 3.7km)	100	6>R>3 80km/hr	2.8	80
Aporo Road	70/100 Speed limit change south of Baldwin Road to the 70/100 Speed Limit change point near the intersection with The Ruby Bay Bypass (Approx 800m)	70	11>R>6 70km/hr 70km/hr	6.2	60

6.2 The table above shows that the warrant result and subsequent rating does not meet that required for the proposed speed limit under the Rule;

6.3 For example a minimum rating value of 3 is required for an 80kph speed limit whilst for a 60kph speed limit a minimum rating value of 11 would be required;

6.4 Generally to meet the requirement of an 80kph speed limit requires achieving an overall rating of 3. In basic terms this means on average three dwellings per 200 metres;

6.5 Speed Limit Warrants will be completed for the other roads recommended to be lowered to 80kph.

6.6 Speed Surveys

Other than Aporo Road, speed surveys for the other roads under review have not been completed. While these results would be informative they would not influence the proposal to lower the existing speed limit by 20 kph as the roads are generally narrow, curvilinear and predominantly no exit and would be expected to exhibit a lower operating speed than currently posted.

6.7 Comment

Based on the narrow roads and curvilinear alignment of many of the roads under consideration a lower maximum speed limit appears to be appropriate without having signed speed limits for every justified variation along a route. Drivers need to be able to make the right choices based on the road view at the time but recognising that the default rural speed limit of 100kph is generally too high for most local rural roads.

6.8 Interestingly most crashes on the network involve an element of speed which as we know the faster we go lessens our reaction time. To change our speeding culture a lower upper speed limit threshold which is appropriate to a local road network is being proposed. From experience, the 80kph speed limit is considered appropriate. This is due to the road design on these roads being closer to the 80kph and hence consistent with the 85th percentile speeds found on most local rural roads.

6.9 Most of the roads proposed under the local area speed limit reduction concept will not have a speed limit sign erected due to the roads being relatively short in length as well as being no exit. Also with so many of the roads having curvilinear alignment the operating speed is likely to be lower than the blanket 80kph proposed.

7. Pros and Cons

7.1 Pros

The lowering of the speed limit from 100kph to 80kph will increase the safety of many rural roads within the Tasman area by providing drivers with better margins for stopping or avoiding a crash. With more life style blocks being developed within the locally zoned Rural 3 Area there is likely to be an increase with on-road activity whether this includes car trips, cycling or walking alongside roads;

7.2 Most local roads weren't built for the speeds that drivers travel on them today. Whilst good sight lines can provide drivers with a certain level of confidence these

sightlines are often variable along the route and range from good to inadequate. A lower speed expectation will reduce drivers travel time exposure risk.

7.3 Cons

A slight increase in travel time;

7.4 A greater expectation from other residents across the rural district for an area approach to be implemented in their neighbourhood.

8. Financial/Budgetary Considerations

8.1 The cost of the consultation process and bylaw changes has not been calculated as this is generally low and considered part of the governance process. The installation of signage and markings would be funded from Traffic Services Renewals budgets. These items are generally low cost and can be carried out within current budgets.

9. Significance

9.1 The recommendations in this report are not considered of significance as consultation with the wider community including Police, the New Zealand Transport Agency, NZ Transport Forum and the Automobile Association will be necessary before a final recommendation is made to Council to alter its Speed Limits Bylaw.

10. Recommendations

10.1 That the report is received

10.2 That the Engineering Services Committee approves public consultation being undertaken for the change to the existing speed limits for those sections of roads described in the draft resolution below.

11. Timeline/Next Steps

11.1 Once approval has been given then consultation would be planned. The time provided for the public to make submissions is a minimum of one month. It is likely that consultation will be combined with speed limit changes proposed at Mapua for consultation.

11.2 Maps showing the existing and proposed speed limits and intersection layout would be displayed at Council's Service Centres and Libraries with the proposed changes advertised for submissions through Newline and local papers.

11.3 Once submissions have closed then a report will be presented to full Council for consideration.

12. Draft Resolution

12.1 THAT the Engineering Services Committee receives the report Proposed Speed Limit Changes – Aporo Road and Surrounding Road Network, RESC11-10-05 and;

12.2 THAT the Engineering Services Committee approves public consultation being undertaken for the following proposed speed limits on the named roads below:

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Pomona Road	Marriages Road – 50/100 SL sign	100	80
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Dee Road	Kina Beach Road - end	100	80
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Appendices

Appendix 1 – Map showing existing speed limits

Appendix 2 – Map showing proposed speed limits