

Notice is given that an ordinary meeting of the Engineering Services Committee will be held on:

Date: Thursday 23 November 2017
Time: 9.30 am
Meeting Room: Tasman Council Chamber
Venue: 189 Queen Street
Richmond

Engineering Services Committee

AGENDA

MEMBERSHIP

Chairperson	Cr S G Bryant	
Deputy Chairperson	Cr P F Sangster	
Members	Mayor R G Kempthorne	Cr S R Brown
	Cr P L Canton	Cr M J Greening
	Cr P H Hawkes	Cr T B King
	Cr C M Maling	Cr D E McNamara
	Cr D J Ogilvie	Cr T A Tuffnell
	Cr A C Turley	Cr D M Wensley

(Quorum 7 members)

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AGENDA

1 OPENING, WELCOME

2 APOLOGIES AND LEAVE OF ABSENCE

Recommendation

That apologies be accepted.

3 PUBLIC FORUM

4 DECLARATIONS OF INTEREST

5 LATE ITEMS

6 CONFIRMATION OF MINUTES

That the minutes of the Engineering Services Committee meeting held on Thursday, 5 October 2017, be confirmed as a true and correct record of the meeting.

7 REPORTS OF COMMITTEE

Nil

8 PRESENTATIONS

Nil

9 REPORTS

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9 REPORTS

9.1 CHAIRMAN'S REPORT

Information Only - No Decision Required

Report To:	Engineering Services Committee
Meeting Date:	23 November 2017
Report Author:	Stuart Bryant, Chairman, Engineering Services Committee
Report Number:	RESC17-11-01

1 Summary

1.1 This is the Chairman's regular six-weekly report to the Engineering Services Committee.

2 Draft Resolution

That the Engineering Services Committee receives the Chairman's Report , RESC17-11-01.

3 Welcome

- 3.1 Welcome to today's meeting, our final Engineering Services Committee meeting for 2017.
- 3.2 It has been a very busy year for both Councillors and staff and I'm sure that 2018 will be equally demanding for us all.

4 Activity during October/November

- 4.1 The Tasman Regional Transport Committee met on 26 October 2017. The committee discussed the recent review of public transport services which was triggered by the petition from the Wakefield and Brightwater communities for a dedicated express bus service to Nelson.
- 4.2 An assessment of the proposed services clearly showed that any form of service from Wakefield/Brightwater or Motueka to Nelson was not feasible.
- 4.3 Ride-sharing (carpooling) was seen as one way that could help the community reduce their travel costs. In fact the data from the last census showed that ride-sharing is already well used in both Brightwater and Wakefield. As a result, the committee agreed to support a carpooling scheme in the draft Long Term Plan.
- 4.4 While the outcome is not the ideal result for the Wakefield and Brightwater communities the feasibility study did show that a loop bus service in Richmond has potential and should proceed to a business case.
- 4.5 I attended the Waimea Community Dam public consultation meetings at St Arnaud and Murchison. Although turnout was low, we had an interesting discussion. Thanks to Councillor King for coming down to Murchison.

5 State Highway Liaison Meetings

- 5.1 Richard Kirby, Jamie McPherson, Robyn Scherer and I met with Frank Porter, the New Zealand Transport Agency's (NZTA) System Manager for the Top of the South on 13 October 2017 to discuss our ongoing relationship with NZTA.
- 5.2 While we recognised that the quarterly State Highway Liaison meetings have been valuable, it is also timely to review how we manage our future relationship with NZTA. We also agreed that the last few liaison meetings had become very "operational" in nature and that those operational issues should be managed by our staff.
- 5.3 Consequently, we will discontinue the liaison meetings and concentrate on strengthening our relationship with NZTA through other channels. We are already doing that. For example, the Motueka Ward Councillors and I are involved at a strategic level with NZTA's business case for State Highway 60 focusing on the main street in Motueka.
- 5.4 Similarly, I have joined the Richmond Ward Councillors as a member of the Richmond Network Operating Framework discussions with NZTA and Nelson City Council.
- 5.5 The Council also has regular meetings and discussions with NZTA and our neighbouring councils, Nelson City and Marlborough District through the Regional Transport Committee as we prepare the 2018 update to the Joint Top of the South Regional Land Transport Plan.

- 5.6 We agreed that in future if Councillors have any state highway operational issues they should be directed through Robyn Scherer who will be our point of contact with Frank Porter and his team.
- 5.7 We also have a very good relationship with NZTA at the senior level through Jim Harland who is the Director of Regional Relationships – South Island. Jim is a voting member of our Regional Transport Committee which provides another avenue for us to raise any high level issues with NZTA.
- 5.8 Finally, we agreed that we would review our relationship with NZTA in a year's time.

6 Close

- 6.1 While it is only the end of November, I would like to take this opportunity to thank my fellow Councillors, Council staff and management for a huge year.
- 6.2 Best wishes to you and your families for the Christmas-New Year festivities.

9.2 SCHOOL SAFETY**Decision Required**

Report To:	Engineering Services Committee
Meeting Date:	23 November 2017
Report Author:	Krista Hobday, Technical Officer - Transportation
Report Number:	RESC17-11-02

1 Summary

- 1.1 A programme of safety improvements outside 22 schools has been in progress since early 2016.
- 1.2 The purpose of this report is to seek approval from the Engineering Services Committee for more work to be undertaken to improve safety outside schools across the Tasman District.
- 1.3 These improvements included the installation of five 40km/hr variable school zones; static “40 km/hr when children present” signs; electronic school warning signs and new and additional standard advanced school warning signs.
- 1.4 This report considers early learning centres within the immediate vicinity of Salisbury Road.
- 1.5 Data was collected from these schools (vehicle speeds, student’s mode of travel and crash data). This data was used to determine whether or not a school would meet the warrant for a 40km/hr variable school zone.
- 1.6 The data shows only one school would meet this warrant – Garin College. However, it is not recommended that a 40km/hr variable school zone sign is installed at the College.
- 1.7 The report discusses the installation of flashing advanced warning signs on Salisbury Road and William Street.
- 1.8 The report also discusses the installation of additional static advanced warning signs and the renewal of other static signs.

2 Draft Resolution

That the Engineering Services Committee

- 1. receives the School Safety report, RESC17-11-02; and**
- 2. approves the following programme of school safety works:**

School	Recommendation	Estimated cost	
		Minor Improvements	Traffic Services Renewals
Henley School	Installation of flashing advanced warning signs, static warning signs and renewal of several existing signs.	\$22,744.38	\$768.02
Garin College	Installation of static advance warning signs	\$1,050.14	\$450.16
Waimea Intermediate Waimea College St Paul's Catholic School Salisbury School First Years Richmond	Installation of flashing advanced warning signs, static warning signs and renewal of several existing signs.	\$43,872.23	\$2,171.76
Richmond Kindergarten	Renewal of orange discs at the Talbot Street pedestrian crossing		\$317.86
Total		\$67,666.75	\$3,707.80

3 Purpose of the Report

- 3.1 The purpose of this report is to seek approval from the Engineering Services Committee to continue the programme of work being carried out to improve safety outside schools across the Tasman District.
- 3.2 This report follows on from previous reports where Council staff sought approval to implement measures at 22 schools. These measures have been installed.
- 3.3 The third stage of the project considers schools and early learning centres within the immediate vicinity of Salisbury Road.
- 3.4 The report outlines the data that has been collected and whether or not this meets the warrant criteria for a 40km/hr variable school zone.
- 3.5 If the warrant criteria is not met, there is discussion around the installation of other safety measures.
- 3.6 Costs of signage and associated work have been obtained.

4 Background and Discussion

- 4.1 There are 36 schools across the Tasman District.
- 4.2 Six of these schools have entrances/exits on to a state highway. These schools fall outside the scope of this project. However, some safety measures have been installed by the New Zealand Transport Agency who manage the state highway network.
- 4.3 The remaining 30 schools were ranked using factors including speed environment, parking facilities and average daily traffic counts.
- 4.4 During the first two stages of this project, safety measures were installed at 22 schools. These measures included the installation of five 40km/hr variable school zones; static “40km/hr when children present” signs; electronic school warning signs; and new and additional standard advanced school warning signs.
- 4.5 The third stage of the project considers schools and early learning centres within the immediate vicinity of Salisbury Road:
 - Waimea Intermediate
 - Garin College
 - Waimea College
 - Henley School
 - Salisbury School
 - Te Kura Kaupapa Maori o Tuia te Matangi
 - St Paul’s Catholic School
 - Futures Early Education
 - First Years Richmond
 - Richmond Kindergarten

- 4.6 Data has been collected to determine whether or not these schools and early learning centres meet the warrant for a variable 40km/hr school zone. This data can be found in **Attachment 1**.
- 4.7 This warrant criteria as set out by the New Zealand Transport Agency (NZTA) can be found in full in **Attachment 2** – NZTA Traffic Note 37, Revision 2 – 40km/hr variable school speed limit.
- 4.8 Speed counts were carried out from Sunday 27 August 2017 to Sunday 3 September 2017 over a 24-hour period.
- 4.9 These speed counts were carried out on Champion Road, William Street and at four locations on Salisbury Road.
- 4.10 The speed counts were then split into 15 minute intervals. An hour of speed counts in the morning and an hour in the afternoon on each week day, were then used for the purposes of this report.
- 4.11 Data was also collected on each school roll and approximately how many students walk or cycle to school, how many travel by bus and how many are driven.
- 4.12 The NZTA Crash Analysis System (CAS) was used to collect data on pedestrian, cycle or speed related crashes over the past five years and for before and after school hours. The CAS database records only crashes reported to the Police.
- 4.13 This speed data, student's modes of travel, CAS data and a full list of recommendations can be found in **Attachment 1**.
- 4.14 The information in **Attachment 1** also outlines the discussions held with each of the individual schools. During these discussions most schools were happy with traffic speeds. They also commented that although there was congestion before and after school, this was to be expected due to the number of school and early learning centres within a small area.
- 4.15 A number of schools mentioned that traffic numbers had increased since work had commenced on the Queen Street upgrade.
- 4.16 There was also a number of comments and concerns in regard to driver behavior. The School Community Police Officers were at most of the meetings. They have taken these comments on board and will continue to focus enforcement on driver behavior.
- 4.17 Other suggestions were raised during individual discussions with schools. These suggestions were mainly focused on using land on the Salisbury School site for possible solutions. This land is owned and maintained by the Ministry of Education and therefore outside the scope of this project.
- 4.18 From the data collected it can be seen that only Garin College met the warrant for a 40km/hr variable school zone. The warrant was only just met. The warrant requires that 85% of speeds be greater than 50km/hr. The 85% speed on Champion Road is 51km/hr.
- 4.19 Due to this speed count only just meeting the warrant and that the College already has a driver feedback sign, staff do not recommended the installation of a 40km/hr variable school zone.
- 4.20 The warrant was not met at the other schools due to the speed of traffic being lower than the required speed.
- 4.21 Other recommendations have been outlined below for each individual/group of schools. A full outline of these recommendations can be found in **Attachment 1**.

Waimea College, Waimea Intermediate, St Paul’s Catholic School, Salisbury School, First Years Richmond

- 4.22 These schools and the early learning centre are situated on Salisbury Road so one recommendation is made for the cluster of schools.
- 4.23 Staff recommend the installation of advanced school flashing warning signs. These will be installed on both approaches to the schools on both sides of the road.
- 4.24 Staff recommend that any existing static advanced school warning signs be removed and that two of the existing advanced crossing warning signs and school supplementary signs are renewed.
- 4.25 Staff recommend the installation of an additional advanced crossing warning sign and school supplementary sign and that all eight of the orange belisha discs at the pedestrian crossings are renewed with new orange belisha discs.



Belisha Disc

Henley School

William Street

- 4.26 Staff recommend the installation of advanced school flashing warning signs. These will be installed to the south of the school entrance on both sides of the road.
- 4.27 Staff recommend the installation of an advanced crossing sign and a school supplementary sign.

Gilbert Street

- 4.28 Staff recommend the installation of a static advanced school warning sign and school supplementary sign.
- 4.29 Staff recommend that the advanced crossing sign and school supplementary sign are renewed.
- 4.30 Staff recommend that the orange belisha discs at the pedestrian crossings are renewed.

Warren Kelly Street

- 4.31 Staff recommend that the existing advanced school warning sign and school supplementary sign are moved to a new pole instead of being attached to the power pole.

Garin College

- 4.32 The speed data showed that the 85% traffic speed on Champion Road before and after school time was 51km/hr. The warrant states this has to be greater than 50km/hr.

- 4.33 However, at this stage staff do not recommend the installation of a 40km/hr variable school zone as this speed was only just met.
- 4.34 There is already a driver speed feedback sign in the vicinity of the College and the Principal was not too concerned about traffic speeds.
- 4.35 Speeds will be monitored along Champion Road with further counts.
- 4.36 Staff recommend that static advanced school warning signs and school supplementary signs are installed on both approaches to the school and that the advanced crossing sign and school supplementary sign to the north of the school are renewed.

Te Kura Kaupapa Maori o Tuia te Matangi

- 4.37 Staff do not recommend any changes or installation of signs in the vicinity of this school.
- 4.38 The school has a very small number of students who walk or cycle to school as the majority arrive in the designated school van.
- 4.39 Note - The Ministry of Education will construct a new driveway on Croucher Street. This will determine the location of any signs, so staff recommend not to install any signs at this stage.

5 Options

- 5.1 Option 1 – do nothing. This option is not recommended by staff as the Council has previously agreed to improve safety outside schools.
- 5.2 Option 2 – staff recommend Option 2. Full details can be found in **Attachment 1**. The table below provides a summary breakdown of costs for each school.

School	Recommendation	Estimated cost	
		Minor Improvements	Traffic Services Renewals
Henley School	Installation of flashing advanced warning signs, static warning signs and renewal of several existing signs.	\$22,744.38	\$768.02
Garin College	Installation of static advance warning signs	\$1,050.14	\$450.16
Waimea Intermediate Waimea College St Paul's Catholic School Salisbury School First Years Richmond	Installation of flashing advanced warning signs, static warning signs and renewal of several existing signs.	\$43,872.23	\$2,171.76
Richmond Kindergarten	Renewal of orange discs at the Talbot Street pedestrian crossing		\$317.86
Total		\$67,666.75	\$3707.80

Note, these figures do not allow for any contingency.

6 Strategy and Risks

- 6.1 The installation of extra signs near schools is seen as very low risk.
- 6.2 Schools have been consulted regarding their safety issues. During these discussions most schools stated they expected a large amount of traffic on Salisbury Road due to the number of schools in a small area.

7 Policy / Legal Requirements / Plan

- 7.1 NZTA has set out specific warrant criteria with processes and guidelines in regard to the installation of 40km/hr variable school zones. These must be followed before the installation of any variable school zone signs.
- 7.2 These guidelines mean that staff do not recommend the installation of 40km/hr variable school signs.

8 Consideration of Financial or Budgetary Implications

- 8.1 A full breakdown of costs for each school can be found in **Attachment 1**.
- 8.2 A summary of costs for each school / cluster of schools can be found in Section 5 of this report.
- 8.3 The Minor Improvements budget will be used for improvements and changes totaling \$67,667.
- 8.4 The Traffic Services Renewals budget will be used for improvements and changes totaling \$3,707.80.

9 Significance and Engagement

- 9.1 The installation of safety measures outside schools across the District is of high interest to those school communities directly affected by the changes. These communities have already been consulted as part of the process detailed in this report.
- 9.2 The wider community has less interest in the issue.
- 9.3 The significance of the changes recommended in this report are considered to be moderate.

10 Conclusion

- 10.1 The recommendations have been carefully analysed and considered. A targeted and measured approach to the issues and concerns has been taken to ensure the solutions for each school / cluster of schools.

11 Next Steps / Timeline

- 11.1 Consultation has already occurred with each of the schools.

- 11.2 The installation of the advanced flashing warning signs, additional static warning signs and the renewal of existing signs is expected to take place before the start of term one in 2018.
- 11.3 Continued monitoring will take place. There is potential for further changes in the vicinity with increased activity.

12 Attachments

- | | |
|-------------------------|----|
| 1. School Safety Report | 17 |
| 2. NZTA Traffic Note | 31 |

Attachment 1

School Safety Report**Henley School**

Main frontage(s)	William Street and Gilbert Street
Average Daily Traffic Count	William Street – 3152 Gilbert Street - 1040
Posted speed limit	50km/hr
Warrant Criteria:	
(a) pedestrian flows (>50 children) <u>and</u>	Yes. Approximately 340 walk, scooter or cycle.
(i) traffic speeds <u>either</u> mean >45km/hr	No. Mean 35km/hr.
(ii) <u>or</u> traffic speeds 85 th percentile >50kmhr	No. 85% 44km/hr
(iii) <u>or</u> five year crash record (or speed related crashes recorded in the last 5 years)	No. There was 2 crashes on William Street & 1 on Gilbert Street during morning and afternoon school times. None were speed related or involved children.
(iv) <u>or</u> main traffic route (or school on main traffic route)	No
(b) Engineered speed limit <40km/hr	N/a
Site compliance with warrant	No.

Current site layout:

There are two main entrances/exits to Henley School, one on William Street and one on Gilbert Street. There is also pedestrian access from Salisbury Road or across Waimea Intermediate School's playing fields.

William Street:

To the south of the school entrance, there is an advanced crossing sign with school supplementary sign. There is no advanced school warning sign and school supplementary sign.

To the north of the school there is an advanced school warning sign and school supplementary sign. However, this sign is on the far left side of the footpath. There is no advanced school crossing sign.

The pedestrian/school crossing leads directly into the school driveway and onto the school grounds.

There are areas of marked parking spaces, unmarked parking areas and no-parking areas along William Street.

There is an off-road car parking area from William Street that has a footpath and a driveway leading onto the school grounds. The driveway is closed to vehicles at the start and end of the school day.

Gilbert Street:

To the west of the school entrance there is an advanced school warning sign and school supplementary sign. There is also an advanced crossing sign and school supplementary sign. All of these signs are in good condition.

To the east of the school there is an advanced crossing sign and school supplementary sign. These signs are faded and need replacing. There is no advanced school warning sign to the east of the school.

The pedestrian/school crossing leads to an access way that leads onto the school grounds. The black and white poles at this pedestrian crossing are smaller than the poles at the crossing on William Street and the orange discs are faded.

There are areas of marked parking spaces, unmarked parking areas and no-parking areas along Gilbert Street.

Warren Kelly Street:

Warren Kelly Street, south of Gilbert Street, has one advanced school warning sign and school supplementary signs. These signs are in good condition, but the sign is on a power pole.

There are no marked parking areas on Warren Kelly Street. The only areas of no-parking areas, highlighted with yellow dashed lines, are at the intersection with Gilbert Street.

Modes of transport:

The school roll is approximately 520. Approximately 180 are driven, 180 scooter, 20 bike and 140 walk.

Issues raised:

Henley School:

The staff said that the installation of the pedestrian crossing on William Street had alleviated many of their safety concerns. This provides a safe crossing point, and actually encouraged parents/caregivers to walk or allow their children to walk rather than being driven.

The school has made some improvements to their car park area on William Street, including the installation of a drop-off zone. The school also discourages visitors to arrive or leave at the busy morning and afternoon times.

The Principal is very active and visible before and after school. This helps discourage parents parking on yellow lines and other bad driving behavior.

Teachers operate the crossings on William Street and Gilbert Street.

The Walking School Buses (WSB) have fizzled out and the school is not looking at re-establishing them. They proved to be very time consuming and ended up with the school arranging how the students would walk to school when other parents were unable to lead the Bus.

The school did have a couple of suggestions, but the Principal was realistic that with the amount of traffic and children walking/cycling there was going to be congestion and the wider Salisbury area worked as well as could be.

The school's comments/suggestions were -

- William Street and Salisbury Road – this is the worst intersection, can any improvements be made?
- Could they have more active Police presence?
- Could lights be installed at one of the existing crossings on Salisbury Road?
- Would the installation of flashing signs (like the ones on Oxford Street) help?

Futures Early Education

This early learning centre has its entrance/exit on Gilbert Street.

One of their issues is that there is often vehicles parked right up to, and sometimes, over their entrance/exit way. They actively watch this and will ask drivers to move on if they are parked over their driveway.

- *Council staff comment – there is not enough road space to mark a parking space at this location due to the proximity to the driveway of Futures Early Education*

Another issue raised was children on scooters whizzing past their exit/entrance.

- *Council staff comment – the centre was emailed in July 2017 to recommend they trim the flax bush on their land at the entranceway to their driveway to help with visibility.*

They also commented that the speed of vehicles at non-busy times can be high.

Recommendation:

William Street:

Council staff recommend that flashing advanced school warning signs are installed on William Street, to the south of the school entrance. These signs would be installed prior to the pedestrian crossing and signs would be installed on both sides of the road.

Council staff recommend that the advanced school warning sign and school supplementary signs to the north of the school are replaced with an advanced crossing sign and school supplementary sign.

Gilbert Street

Council staff recommend the advanced crossing sign and school supplementary sign to the east are replaced.

Council staff recommend the installation of a static advanced school warning sign and school supplementary sign to the east of the school.

Council staff recommend that the orange discs at the pedestrian crossing are replaced.

Warren Kelly Street:

Council staff recommend that the advanced school warning sign and school supplementary sign are removed from the power pole and put onto a separate pole.

Cost:

William Street:

To install 2 x flashing advanced school warning signs = \$21,673.58

To install 1 x static advanced school crossing sign and 1 x supplementary school sign = \$450.16
(no pole needed)

Gilbert Street:

To replace 1 x static advanced crossing sign and 1 x school supplementary sign = \$450.16

To install 1 x static advanced school warning sign and 1 x school supplementary sign on 1 x new pole = \$525.07

To replace 2 x orange discs at the crossing = \$317.86

Warren Kelly Street:

To move the existing advanced school warning sign and school supplementary sign onto 1 x new pole = \$95.57

Note – costs do not include building of any traffic islands around the sign or diverting any services in the road berm.

Minor Improvements		Sign Renewal	
2 x flashing advanced school warning signs	\$21,673.58	To replace 1 x static advanced crossing sign and 1 x school supplementary sign	\$450.16
1 x static advanced school crossing sign and 1 x supplementary school sign	\$450.16	To replace 2 x orange discs at the crossing	\$317.86
To install 1 x static advanced school warning sign and 1 x school supplementary sign on 1 x new pole	\$525.07		
To move the existing advanced school warning sign and school supplementary sign onto 1 x new pole	\$95.57		
Total	\$22,744.38	Total	\$768.02

Garin College

Main frontage(s)	Champion Road
Average Daily Traffic Count	6509
Posted speed limit	50km/hr
Warrant Criteria:	
(c) pedestrian flows (>50 children) <u>and</u>	Yes.

	Approximately 128 walk or cycle.
(v) traffic speeds <u>either</u> mean >45km/hr	No. Mean 44km/hr
(vi) <u>or</u> traffic speeds 85 th percentile >50km/hr	Yes. 85% 51km/hr
(vii) <u>or</u> five year crash record (or speed related crashes recorded in the last 5 years)	No. There was only one crash on Champion Road, this was not speed related or involved children.
(viii) <u>or</u> main traffic route (or school on main traffic route)	No.
(d) Engineered speed limit <40km/hr	N/a
Site compliance with warrant	No.

Current site layout:

To the south of the school there is an advanced crossing sign and a school supplementary sign. Both of these signs are in good condition. At this location there is also the word “school” marked on the road. There is no advanced school warning sign and school supplementary sign.

There is also driver speed feedback sign to the south of the school.

To the north of the school there is an advanced crossing sign and a school supplementary sign. Both of these signs are faded. At this location there is also the word “school” marked on the road. There is no advanced school warning sign and school supplementary sign.

A pedestrian crossing is located between the vehicle access and pedestrian access to the College.

There is an off-road car parking area within the school grounds. There are no marked parking areas on Champion Road; however the road is wide enough for vehicles to park. There are some stretches of marked no parking areas.

There is an off-road bus bay within the school grounds.

Modes of transport:

The current school roll is 514. Of this number approximately 48 cycle, 80 walk, 145 travel bus, 18 drive themselves and 220 are driven.

Issues raised by the school:

The Principal said that there is congestion every morning and afternoon on Champion Road and at the roundabout at Champion / Salisbury Roads. However, he said that most drivers are well behaved.

The buses leave the bus bay and turn right. There is usually congestion at this point but most drivers are usually courteous and let the buses out. The School Community Officer suggested that yellow hatching could be installed by the bus bay exit so the buses can get out easier. However, the Principal thought this might cause other issues with the amount of traffic trying to get through the crossing. He also said it all seems to be working well at the moment.

The pedestrian crossing is very busy, but students do use it. However, students usually cross in small groups that can lead to a steady stream of students crossing, which can cause vehicles to back up as there is few gaps for them to move through the crossing.

The Principal has been actively discouraging students crossing at the roundabout on Champion / Salisbury Roads and encourages them to cross at the pedestrian crossing and then cross Salisbury Road using the underpass or further along Salisbury Road at one of the pedestrian crossings.

The Principal commented that future improvements may be needed once / if the supermarket and retirement village is built.

Recommendation:

Council staff do not recommend the installation of 40km/hr variable school zones.

- The speed data for the warrant was only just met. The warrant requires the 85% of speeds to be greater than 50km/hr. The 85% speed on Champion Road is 51km/hr.
- There is a speed feedback sign on Champion Road before the College
- The principal was not concerned with speeding traffic and stated that there was congestion before and after school times, but drivers and students behaved and drove considerably

Council staff recommend that static advanced school warning signs and school supplementary signs are installed on both approaches to the school.

Council staff recommend that the advanced crossing sign and school supplementary sign to the north of the school are replaced.

Cost:

To install 2 x advanced school warning signs, 2 x school supplementary signs and install 2 x poles = \$1,050.14

To replace 1 x advanced crossing sign and 1 x school supplementary sign = \$450.16

Total:

Minor Improvements		Sign Renewal	
To install 2 x advanced school warning signs, 2 x school supplementary signs and install 2 x poles	\$1,050.14	To replace 1 x advanced crossing sign and 1 x school supplementary sign	\$450.16
Total	\$1,050.14	Total	\$450.16

Note – costs does not include building of any traffic islands around the sign or diverting any services in the road berm. Price only includes monitoring for one year.

Te Kura Kaupapa Maori o Tuia te Matangi

Main frontage(s)	D'Arcy Street
Average Daily Traffic Count	
Posted speed limit	50km/hr
Warrant Criteria:	
(e) pedestrian flows (>50 children) <u>and</u>	No. Approximately 6 children walk
(ix) traffic speeds <u>either</u> mean >45km/hr	No counts done
(x) <u>or</u> traffic speeds 85 th percentile >50kmhr	No counts done

(xi) <u>or</u> five year crash record (or speed related crashes recorded in the last 5 years)	No. There was only one crash near the school entrance, but this was outside of school hours
(xii) <u>or</u> main traffic route (or school on main traffic route)	No
(f) Engineered speed limit <40km/hr	N/a
Site compliance with warrant	No

Current site layout:

The school is located at the end of D'Arcy and Croucher Streets. The kura currently has access via the carpark of the neighbouring church off Croucher Street.

The Ministry of Education has purchased a residential property at 32 D'Arcy Street with the intention of constructing a driveway to service the kura. At the time of writing this had not been completed.

Modes of transport:

The current school roll is 50 students. Of these 50 students about six walk and the majority of the rest arrive in the school bus or van. The kura has a wide catchment area.

There is also a playgroup on site, but this currently does not have a large roll and so does not have huge impact on numbers of children and parents arriving by car or walking

Issues raised by the school:

One issue raised by the school bus and van drivers is that due to the amount of traffic on the roads it can sometimes affect when these arrive in the morning. This can then have a knock-on effect with the timing of the school day.

The other issue was the slow construction of the access way through 32 D'Arcy Street. However this is under the control of the Ministry of Education and so outside the scope of this project,

Recommendation:

At this stage Council staff do not recommend the installation of any signs. This will be reviewed once the new driveway has been constructed.

No costs.**Waimea Intermediate, Waimea College, St Paul's Catholic School and Salisbury School**

All of these schools or colleges have their main frontages leading onto Salisbury Road. Signs, bus bays and parking areas have been identified for the length of Salisbury Road, but each school or college has their own issues as noted below.

Main frontage(s)	Salisbury Road
Average Daily Traffic Count	The traffic count varies along the length of the road. At the busiest time the daily count is just under 1500 vehicles.
Posted speed limit	50km/hr

Warrant Criteria:	
(g) pedestrian flows (>50 children) <u>and</u>	Yes
(xiii) traffic speeds <u>either</u> mean >45km/hr	No. Mean 38km/hr, 42km/hr, 37km/hr & 41km/hr
(xiv) <u>or</u> traffic speeds 85 th percentile >50km/hr	No. 85% 43km/hr, 47km/hr, 44km/hr & 47km/hr
(xv) <u>or</u> five year crash record (or speed related crashes recorded in the last 5 years)	No. There have been 20 crashes, of these 18 were non-jury crashes and 2 were minor injury crashes. Two involved a pedestrian; 3 involved a cyclist; 2 were medical issues; 8 were rear-end crashes; 3 were caused by one vehicle failing to give way to another vehicle, 1 car hit an parked car; 1 car opened a door into the path of another vehicle. None of the crashes involved speed. Nearly half of the crashes were rear-end crashes.
(xvi) <u>or</u> main traffic route (or school on main traffic route)	Yes
(h) Engineered speed limit <40km/hr	N/a
Site compliance with warrant	

Current site layout:**Signs:**

Travelling along Salisbury Road from Champion Road there is an advanced school warning sign and school supplementary sign just before Arbor-Lea Avenue. Both of these signs are faded.

There is then an advanced crossing sign with school supplementary sign just before the pedestrian crossing. Both of these signs are in good condition.

There is another advanced crossing sign with school supplementary sign just before the next pedestrian crossing. Both of these signs are faded.

Travelling along Salisbury Road from Queen Street there is an advanced school warning sign and school supplementary sign.

There is no advanced crossing sign before the crossing outside Waimea Intermediate.

There is an advanced crossing sign and school supplementary sign before the crossing outside Waimea College. Both of these signs are faded.

All the orange discs at both of the crossings are faded.

Parking areas:

On the north side of the road there is marked no parking from Champion Road to slightly east of the intersection with William Street and then from Talbot Street to Queen Street.

On the south side of the street there are some marked parking spaces between Templemore Drive and D'Arcy Street. Some of these parking spaces are labeled as P2 parking between 8.15am to 9.15am and 2.45pm to 3.15pm, Monday to Friday. All of these parking spaces are restricted as no-parking spaces for selling a vehicle.

- **Waimea College**

Within the College grounds there are areas of P2 parking, areas of no time restricted parking and a separate Year 13 car park area.

- **Waimea Intermediate**

Within the Intermediate grounds there are areas for staff and visitor parking.

- **St Paul's School**

Within St Paul's School grounds, there are areas for staff parking, visitor parking and some for parent parking before and after school. They also have a "kiss and drop zone", which is the same as a drop-off zone.

Pedestrian crossings:

There are pedestrian crossings by the entrances / exits of both Waimea College and Waimea Intermediate. The one by Waimea College leads to the entrance/exit for St Paul's School.

Cycle lanes:

There are marked cycle lanes on both sides of the road for the entire length of the road from Champion Road to Queen Street.

Bus bays:

There are several bus stops and bus bays along Salisbury Road.

There is a large buy bay area within Waimea College grounds.

Underpass:

There is an underpass at the Champion Road end of Salisbury Road, this leads from one side of Salisbury Road to the other side.

Traffic lights:

There are traffic lights at the intersection of Salisbury Road and Arbor-Lea Avenue and at the intersection of Salisbury Road and Talbot Street. Both sets of lights have pedestrian phases.

Modes of transport:

There is around 2,500 students from these three schools travelling along Salisbury Road each day. There is a mix of students walking, cycling, using a scooter, and being driven or travelling by bus

This number does not include the teachers at each of the three schools. A number of these teachers work part-time and so they are travelling throughout the day. This also applies to Salisbury School whose teachers arrive and leave at all times of the day and night, including weekends.

Issues raised by the school/college:**Waimea College**

The College has 100 teachers and 60 support staff; some work part-time and so start and finish times vary. This is also the same for the Year 13 students depending on their timetable. These different start and finish times increases the amount of traffic movements around the College and on surrounding roads.

Students arrive by bus and then a large number walk to the dairy or further before actually starting school. This increases the numbers of students walking within the Salisbury Road area.

The College has several different walkways onto the school grounds and a number of alleyways leading from local side streets.

The property manager stated that the installation of the lights by their entranceway and Arbor-Lea Avenue and the pedestrian crossings create gaps in traffic for vehicles entering/exiting school grounds.

He also said that the recent ban of vehicles being parked and marked for sale along Salisbury Road has made a huge positive improvement to the visibility along this stretch of road and availability of parking spaces.

The property manager said one of their biggest issues was having the three schools in the same location causing congestion and large amounts of vehicles on the road before and after school. One of their main entrances/exits is opposite the entrance/exit for St Paul's which at times meant there could be vehicles in both directions at this location at the same time. His suggestion to alleviate this issue was to extend the middle crossing island so vehicles could only enter or exit from the left at this location. However, he did not think this would have the support of everyone.

➤ *Staff comment – this suggestion would not be progressed as it could increase the amount of vehicles attempting u-turns along the road and other potential risker behaviour.*

St Paul's

St Paul's School has a wider catchment area than other primary schools because it is a Catholic School. This leads to more students being driven to school as they live too far to walk or cycle and so more vehicles in the school vicinity before and after school times.

The school does not have a designated bus service, but some students use school buses leaving from Waimea College.

The Principal said that when the school was first built 17 years ago Enviro Services (who looked after schools at that time) looked at the traffic congestion and felt that this was an issue even then.

The Principal also commented that due to the Queen Street upgrade there was even more traffic on Salisbury Road.

Some of the issues raised by the Principal included –

- Speeding traffic
- Vehicles carrying out illegal and dangerous U-turn movements
- There is not much parking near the school and parents do make poor decisions.
- Parents at times park and leave their cars in the kiss and drop zone; park on the footpath; take risks when pulling out of the school driveway as it can be difficult to pull out from.
- Other drivers use their turn around area

- There is not much parking on the school grounds.
- Sunstrike can be a problem at this time of year.
- There can be issues with children scooters crossing the school driveway at the same time as vehicles.

The principal also made a couple of suggestions to improve their safety issues –

- The properties at the front of their school boundary, which are owned by Salisbury School could be used for a parking area
 - *Staff comment – this land is owned by Ministry of Education and so outside the scope of this project.*
- The front field of Salisbury School could be turned into a parking area
 - *Staff comment – this land is owned by Ministry of Education and so outside the scope of this project*
- Install traffic lights instead of the pedestrian crossing next to their entrance/exit

Salisbury School

The school currently has 35 staff, traveling mostly by car at all times of the day and all days of the week, i.e. 24/7. They have five school vans that come and go regularly.

The school has made improvements to the front of their driveway, along with St Paul's School. They do patrol this area, which does work, although this is an ongoing issue due to new parents and repeat offenders.

The school's main concern is the congestion at the junction of Salisbury School and Saint Paul's School driveways at 8.45am and particularly at 2.45 -3.15pm. Cars picking up students park dangerously, on yellow lines, blocking the view of cars on the driveway. There have been several near misses where students have stepped out from behind cars that are parked on the yellow lines. Sometimes the driveway is blocked and cars queue out onto Salisbury Road.

Another issue for the school is that sometimes it is not possible to turn right from the end of their driveway.

First Years Richmond

This Early Learning Centre is on Salisbury Road, near to St Paul's School.

The early learning centre has made improvements to their car parking area by cutting back vegetation that helps with visibility of cars leaving their car park. They are also putting up a sign to remind drivers as they leave the car park to look for pedestrians. Long term, they will look at increasing the size of their car parking area.

The centre was quite happy with the speed of traffic along Salisbury Road and said that Salisbury Road is very busy and it was always going to be that way due to the number of schools and early learning centres along the road. One issue was the numbers of cars on Salisbury Road which sometimes made it difficult to turn right out of their car parking area.

Also, sometimes St Paul's parents used their car park, which creates less parking for their parents. However, they monitored this and would speak to parents concerning this.

They suggested a bypass for vehicles not using Salisbury Road so they can bypass Richmond.

- *Staff comment – no plans for a Richmond bypass.*

Recommendation:

Council staff recommend that flashing advanced school warning signs are installed on Salisbury Road. These would be installed on both approaches to the cluster of schools, near the intersections with Arbor-Lea Avenue and Florence Street. A sign would be installed on both sides of the road, resulting in a total of four signs being installed.

Council staff recommend that the advanced crossing sign and school supplementary sign by Waimea Intermediate, on the side of the road by the Intermediate, are replaced.

Council staff recommend the installation of an advanced crossing sign and school supplementary sign before the crossing outside Waimea Intermediate, on the opposite side of the road.

Council staff recommend that the advanced crossing sign and school supplementary sign before the crossing outside Waimea College, on the opposite side of the road are replaced.

Council staff recommend that all the orange discs at both of the crossings are replaced.

Cost:

To install 4 x flashing advanced school warning signs = \$43,347.16

To replace 1 x advanced crossing sign and 1 x school supplementary sign by Waimea Intermediate = \$450.16

To install 1 x static advanced crossing sign and 1 x school supplementary sign on 1 x new pole before the crossing outside Waimea Intermediate, on the opposite side of the road = \$525.07

To replace 1 x advanced crossing sign and 1 x school supplementary sign before the crossing outside Waimea College, on the opposite side of the road = \$450.16

To replace 8 x orange discs at both of the crossings = \$1,271.44

Minor Improvements		Sign Renewal	
To install 4 x flashing advanced school warning signs	\$43,347.16	To replace 1 x advanced crossing sign and 1 x school supplementary sign by Waimea Intermediate	\$450.16
To install 1 x static advanced crossing sign and 1 x school supplementary sign on 1 x new pole before the crossing outside Waimea Intermediate, on the opposite side of the road	\$525.07	To replace 1 x advanced crossing sign and 1 x school supplementary sign before the crossing outside Waimea College, on the opposite side of the road	\$450.16
		To replace 8 x orange discs at both of the crossings	\$1,271.44
Total	\$43,872.23	Total	\$2,171.76

Richmond Kindergarten:

This kindergarten is located on the corner of Elizabeth Street and Florence Street.

Staff commented that the installation of P10 parking outside their kindergarten works really well.

The kindergarten children walk to the town hall every couple of weeks and their biggest issue is the crossing on Talbot Street and vehicles not stopping to let them cross

When the kindy kids walk to Waimea College, it is much better as the footpaths are wide and people stop for them when waiting at the crossings on Salisbury Road.

The parked vehicles on both sides of Elizabeth Street make the road very narrow. The kindergarten teachers said this is an “accident waiting to happen”. They asked if it was possible to extend the no-parking lines at the intersection of Elizabeth and Florence Streets.

The teachers also suggested that advanced warning signs be installed on Florence and Elizabeth Streets.

Recommendation:

Council staff recommend that the orange discs on the crossing on Talbot Street are replaced.

Council staff recommend that the visibility of pedestrians for approaching traffic at the crossing on Talbot Street is investigated.

Council staff do not recommend that the no parking lines are extended. These have recently been remarked and so at this stage it is recommended to leave the marking as it is.

Council staff do not recommend the installation of advanced warning signs. This is a busy road with lots of parked vehicles and so extra signs are likely to get lost amongst this activity.

Cost:

To replace 2 x orange discs at the crossing = \$317.86

Total:

Minor Improvements		Sign Renewal	
		To replace 2 x orange discs at the crossing	\$317.86
		Total	\$317.86

Total costs:

Minor Improvements		Sign Renewal	
2 x flashing advanced school warning signs	\$21,673.58	To replace 1 x static advanced crossing sign and 1 x school supplementary sign	\$450.16
4 x flashing advanced school warning signs	\$43,347.16	To replace 1 x advanced crossing sign and 1 x school supplementary sign	\$450.16
1 x static advanced school warning sign and 1 x school supplementary sign on 1 x new pole	\$525.07	To replace 1 x advanced crossing sign and 1 x school supplementary sign	\$450.16
2 x advanced school warning signs, 2 x school supplementary signs and install 2 x poles	\$1,050.14	To replace 1 x advanced crossing sign and 1 x school supplementary sign	\$450.16

Minor Improvements		Sign Renewal	
1 x static advanced school crossing sign and 1 x supplementary school sign	\$450.16	To replace 8 x orange discs at both of the crossings	\$1,271.44
1 x static advanced crossing sign and 1 x school supplementary sign on 1 x new pole	\$525.07	To replace 2 x orange discs at the crossing	\$317.86
To move the existing advanced school warning sign and school supplementary sign onto 1 x new pole	\$95.57	To replace 2 x orange discs at the crossing	\$317.86
Total	\$67,666.75	Total	\$3,707.80



TRAFFIC NOTE 37

Revision 2

Date	May 2011
From	National Planning Unit, Planning and Investment
Authorisation	Glenn Bunting, Network Manager
No. of pages	11

40km/h variable speed limits in school zones - guidelines

1 Purpose

40km/h variable speed limits in school zones have been operating successfully in New Zealand since they were first installed on a trial basis in Christchurch in January 2000. In April 2011 the NZ Transport Agency (NZTA) revised the conditions of approval to give road controlling authorities more flexibility to install these speed limits at both urban and rural schools.

Land Transport Rule: Setting of Speed Limits 2003 requires the NZTA to approve a variable speed limit before a road controlling authority can make a bylaw to set such a speed limit. For 40km/h variable speed limits in school zones, the NZTA has published a revised notice in the *New Zealand Gazette*¹ (the Gazette) which approves those speed limits, sets out appropriate conditions and authorises road controlling authorities to set them. This traffic note provides guidelines to comply with the Gazette notice, based on the results of the trials in Christchurch and subsequent experience with these speed limits. Recommendations for installing variable speed limits at rural schools are also included in this traffic note.

2 Background

Roads outside schools are perceived as dangerous for children. At the time when children are arriving at or leaving school and crossing the road there can be high volumes of traffic, manoeuvring vehicles, parked vehicles obscuring visibility and vehicle speeds often appear too high. Research has shown reducing vehicle speeds to 40km/h or less significantly reduces the level of injury if a child is struck by a vehicle.

In some situations standard traffic control devices and the level of activity outside a school do not result in lower traffic speeds. This is particularly likely where the school is on an arterial or other road where there is a high volume of traffic or high speeds. In these circumstances, installation of a 40km/h variable speed limit in the school zone may be desirable to achieve a lower speed environment.

In many jurisdictions, such as some states in Australia and the United States, school zones with special speed limits are indicated by permanently displayed signs. The major drawback of any permanently displayed sign is the manner in which drivers, many of whom pass the same sign regularly without requiring any action in response to it, tend to ignore or fail to see it.

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Variable signs, which are displayed only when relevant, offer a way in which this drawback can be minimised and may actually enhance driver acceptance of any restriction imposed. Variable signs were used for the Christchurch trials and the results of that study are embodied in these guidelines.^{2, 3} In recent years some states in Australia have begun to retro-fit permanently displayed signs with active signs that have flashing lights or electronically displayed speed limits to improve community acceptance and compliance with speed limits in school zones.

3 Objectives of variable speed limits in school zones

Variable speed limits in school zones have the following objectives:

- provide a safer road environment outside schools
- reinforce driver expectations of the likely presence of children
- encourage safe and active travel to school.

One of the objectives of the Christchurch trial was to encourage children to walk or ride to school. A major impediment is parents' concerns about child safety. The trial indicated general parent and school belief the signs provided benefits but any shift in mode of travel by children, if it did occur, was not measurable. This reinforces the view no single initiative is likely to bring about changes of the type sought. A 40km/h variable speed limit in a school zone is unlikely to be effective by itself and must complement other initiatives aimed at enhancing safety for children undertaken at the site by the road controlling authority, the school and other organisations.

4 Warrant

A road controlling authority may set a 40km/h variable speed limit in a school zone under the following conditions:

- (a) there is school-related pedestrian or cycle activity on the road outside the school, which exceeds approximately 50 children crossing the road or entering or leaving vehicles at the roadside, and the traffic on the road outside the school meets at least one of the following conditions:
 - (i) the mean speed of free-running vehicles is greater than 45km/h (measured when the 40km/h variable speed limit is not operating), or
 - (ii) the 85th percentile speed of free-running vehicles is greater than 50km/h (measured when the 40km/h variable speed limit is not operating), or
 - (iii) there have been pedestrian, cycle or speed-related crashes near the school in the previous five years, or
 - (iv) the school-related activity occurs on a main traffic route, or
- (b) there is school-related pedestrian or cycle activity on the road outside the school, with children crossing the road or entering or leaving vehicles at the roadside, and safe and appropriate traffic engineering measures are installed so that the mean operating speed of free-running vehicles on the road outside the school does not exceed 40km/h when the 40km/h variable speed limit is operating.

Evaluations in Christchurch found locations most likely to benefit from a variable speed limit in a school zone are those where there is a high level of school-related activity on the road outside the school and:

- are on arterial routes or multi-lane roads or high speed environments, and
- have on-road, school-related activity at an obscured school frontage (ie where the presence of the school is not immediately obvious to approaching traffic).

5 Best practice guidelines

Factors required for the successful operation of a 40km/h variable speed limit in a school zone are:

- having times of operation coinciding with on-road, school-related activity
- approved advisory signs and regulatory displays that alert motorists they are travelling through a school zone
- appropriate levels of enforcement by the police
- long-term commitment by the principal and Board of Trustees for the correct operation of a 40km/h variable speed limit at their school.

5.1 Times of operation

The Christchurch trials showed variable speed limits in school zones are effective in reducing speeds, but have the support of drivers only if there are children present when they are operating. Therefore, the times they are activated must be tightly controlled to match, as closely as possible, the times children are crossing the road or are gathered on the roadside. These times may vary from school to school and from time to time. An accurate time clock is therefore a necessary component of a variable speed limit in a school zone.

It is preferable that the 'School zone variable' signs are turned on manually by a supervisor approved by the school principal each time they are required. However, it is permissible to programme the system to operate at the standard times on school days only, provided the signs do not operate on holidays and can be switched on or off manually for special events or if they are not required for the maximum period of operation on any particular day. A system that is programmed to operate automatically must include a record of the times the signs are switched on and off each day. Even if the signs operate automatically, the school principal must still appoint a supervisor to oversee the operation on each occasion they are used. The signs may operate for a maximum period of:

- 35 minutes before the start of school until the start of school
- 20 minutes at the end of school commencing no earlier than five minutes before the end of school
- 10 minutes at any other time of day when children cross the road or enter or leave vehicles at the roadside.

Unless the signs are manually turned off earlier, they must turn off automatically when the maximum period has elapsed.

5.2 Length of variable speed limits in school zones

Variable speed limits in school zones should be installed to avoid, as far as possible, side roads with no school frontage. They should be as short as practicable; between 300 metres and 500 metres long.

There may be shorter lengths on no exit roads or minor roads with give way or stop control at the intersection with the school zone, provided the variable speed limit on these roads is adjoining the variable speed limit on the main road outside the school.

5.3 Signs

The signs for variable speed limits in school zones must comply with Land Transport Rule: Traffic Control Devices 2004. Signs with changeable speed limit numerals have been specified by the NZTA in the Gazette¹ as a condition of setting a variable speed limit in a school zone. The signs required are described below.

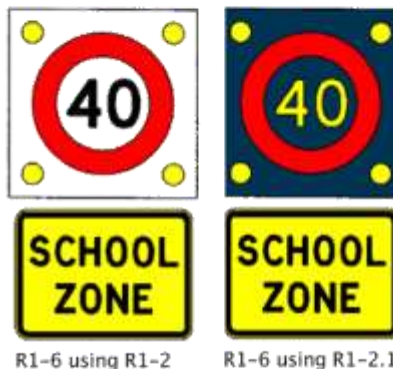
(a) R1-6 'School zone variable' sign:

The R1-6 'School zone variable' sign comprises a variable speed limit sign above a 'School zone' supplementary sign. The R1-2 or R1-2.1 variable speed limit sign displays the 40km/h speed limit only during the period when it applies. At all other times the sign is blank or displays the permanent speed limit. These signs must be installed on the main road passing the school entrance and on any significant road adjoining the school zone.

The Gazette notice specifies that at least one variable sign is required at each end of the speed limit on the main road outside the school and on major roads that intersect with the school zone. This condition in the Gazette notice is in accordance with clause 6.1 and subclause 8.4(1) of Land Transport Rule: Setting of Speed Limits 2003 and overrides the general requirement in 8.7(2)(a) to have signs on both sides of the road if the traffic volume exceed 500 vehicles per day. However, there should be at least two of these signs facing traffic entering the variable speed limit on multi-lane roads, if the roadway is more than 15 metres wide or has a permanent speed limit of more than 70km/h.

The two options permitted for variable speed limit signs use different technology.

- R1-2: the speed limit numerals, roundel and background are displayed in the same colours as permanent speed limit signs, namely black, red and white respectively. Mechanical elements are used to display the speed limit and the message is depicted entirely with retro-reflective material.
- R1-2.1: the speed limit numerals are displayed using yellow or white, lit pixels (eg light emitting diodes, fibre optics). The background is black and unlit. For signs that display only the 40km/h variable speed limit and are blank for the rest of the time, the roundel is displayed with red, lit pixels. Alternatively, for signs that display the permanent speed limit at times when the variable speed limit does not apply, the roundel may be displayed with either red, lit pixels or with red retro-reflective material.



R1-6 using R1-2

R1-6 using R1-2.1

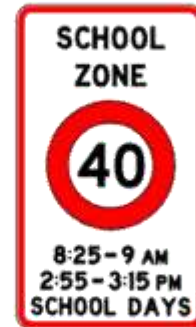
For each of these two variable speed limit signs:

- when not operating, the underlying message on the speed limit sign must not be discernible to approaching drivers, and
- yellow or white lights, of sufficient brightness to draw attention to, but not distract from, the sign nor dazzle, should be fitted in each corner and must operate by flashing in alternate diagonal pairs when the 40km/h variable speed limit is displayed, and
- the 'School zone' supplementary sign, fitted below the variable speed limit sign, must be displayed permanently. The 'School zone' supplementary sign has a black legend and border on a retro-reflective, fluorescent, yellow-green background.

Where the road controlling authority sets a 40km/h variable speed limit that may operate at other than the standard times, all the signs at the beginning of the school zone must be variable signs. This requirement includes all side roads intersecting with the school zone because fixed signs cannot provide accurate times of operation.

(b) R1-6.1 'School zone fixed' sign

The R1-6.1 'School zone fixed' sign has a black legend, red roundel and border on a white background. The roundel, border and background are retro-reflective. The legend showing the time must notify the times during which the 40km/h variable speed limit is in effect and must be specific for each school zone.



Instead of a 'School zone variable' sign a 'School zone fixed' sign may be installed on no exit or minor stop or give way controlled side roads adjoining the school zone. This is based on assumptions that:

- most traffic using such a road will be local and the drivers will be aware of, and responsive to, the school zone operation, or
- the speed of vehicles entering from the side road and passing through the school zone is unlikely to exceed 40km/h.

If these conditions do not apply, R1-6 'School zone variable' signs must be installed on the side road.

Likewise 'School zone variable' signs must be used if the times when the variable speed limit operates are likely to vary because:

- the variable speed limit may operate only at the times specified on a 'School zone fixed' sign; and
- it is not reasonable to expect drivers to read and react to messages longer than the standard operating times displayed on the 'School zone fixed' sign.

(c) R1-7 'School zone ends' sign

At least one R1-7 'School zone ends' sign must be used on each road leaving the school zone. There should be at least two of these signs on multi-lane roads, if the roadway is more than 15 metres wide or has a permanent speed limit of more than 70km/h.

A 'School zone ends' sign comprises a R1-1 speed limit sign above a 'School zone ends' supplementary sign. Both signs are mounted on a white retro-reflective backing board. The 'School zone ends' sign has a black legend and border on a retro-reflective, fluorescent, yellow-green background. The speed limit sign displays the permanent speed limit for the road.

(d) Sign layout

Appendix 1 has a diagram showing a typical layout of signs for a variable speed limit in a school zone.

**5.4 Police enforcement**

To be effective the variable speed limit in a school zone must be able to be enforced. The length of the zone, visibility of the signs, proof of display and other issues are all matters the Police must take into account in determining whether they are able to proceed with enforcement and subsequent action. It is therefore imperative any variable speed limit considerations involve the District Road Policing Manager of NZ Police.

The necessary enforcement precedents have been set to enable the police to enforce the 40km/h speed limit in school zones.

5.5 School commitment and activity

It is essential there be formal involvement by the school in the decision to introduce a 40km/h variable speed limit in a school zone. The school is often the prime instigator for consideration of a speed limit but they must understand that once installed there are functions the school must carry out for the speed limit to be effectively managed and for it to achieve the desired outcomes.

For example:

- The operation of the 'School zone variable' signs must be supervised by a person authorised by the school principal.
- Any defined school crossing facility for children must have an adult supervisor when it is operating.
- The signs must be activated and deactivated simultaneously (eg by radio signal or hard-wired) with a secure system which is accessible only by means such as a key or swipe card. This applies whether they are switched manually or automatically.
- The principal must agree to keep an accurate log of the occasions and times the 40km/h speed limit is operating unless these times are stored automatically by the equipment and can be retrieved by the road controlling authority. The log is essential for enforcement purposes (to demonstrate not only that the signs were operating at a particular time but, also to show the conditions of operation set out in the speed limit bylaw are being effectively managed). It can also be useful to determine justifiable changes to time or other aspects of the operation of the speed limit.

5.6 Rural schools

Records of crashes involving school-age pedestrians or cyclists in the vicinity of rural schools show that there have been very few injury crashes in recent years. One of the main reasons for the low number of crashes is that very few children walk or cycle to schools in rural areas. Most of the activity outside a rural school is the parking and manoeuvring of vehicles as parents and caregivers drop-off or pick-up their children. The most appropriate safety measure for this type of activity is to provide a set-down and pick-up facility clear of through traffic lanes. Ideally this would be in the school grounds or on a side road with low traffic volume.

Another measure that has proven successful in lowering speeds outside schools is active school warning signs. See *Traffic note 56* for more detail on active warning signs in school zones.

40km/h variable speed limits in school zones were originally intended for installation in urban or semi-urban areas where the permanent speed limit is 70km/h or less. Some Australian states allow school zone speed limits of 60 or 80km/h in areas where the permanent speed limit is over 80km/h. However, allowing a higher variable speed limit in a rural school zone would not provide an appropriate level of safety when considered from a Safe System perspective. The probability of a pedestrian being killed if struck by a car rises rapidly at impact speeds over 30km/h. Having a speed limit of 40km/h relies on there being some speed reduction before impact in a crash involving a car hitting a pedestrian. If the school zone speed limit was higher, impact speeds would be too high, even if there was some speed reduction before impact. So, regardless of the permanent speed limit, the maximum safe speed limit in a school zone is 40km/h.

In areas with a speed limit over 80km/h it is unlikely that motorists will slow to 40km/h within the short length of a school zone. However, there are some examples of 40km/h variable speed limits in rural school zones that operate satisfactorily on roads with a permanent speed limit of 80km/h. This suggests that where the permanent speed limit is higher than 80 km/h it will need to be reduced. This must be done in accordance with Land Transport Rule: Setting of Speed Limits 2003. In situations where the calculated speed limit is higher than 80km/h, it may be desirable to review the speed limit for the surrounding area in accordance with the Safe System Approach for managing safety on rural roads. *Traffic Note 61* provides more information on Safe System rural speed management.

Regardless of the criteria upon which an 80km/h speed limit is justified, it is essential that it operates safely with mean speeds at or below 80km/h. Some of the following measures will probably be necessary to achieve good compliance with a permanent 80km/h speed limit at a rural school:

- Thresholds (see www.nzta.govt.nz/resources/road-traffic-standards/docs/rtts-15.pdf).
- Lane narrowing – (install median or increase shoulder width).
- Textured and or coloured road surface.
- Vertical elements, eg thresholds and planting, but care is necessary to avoid restricting sight lines that might obscure pedestrians in the school zone.
- Speed indicator devices, publicity and education.
- Enforcement.

6 Application

6.1 Implementation

A 40km/h variable speed limit in a school zone can only be implemented by a road controlling authority if:

- the conditions approved by the NZTA in the Gazette¹ are complied with
- consultation is undertaken in accordance with Land Transport Rule: Setting of Speed Limits 2003, and the people consulted are provided with details of the proposed speed limit including changes to the permanent speed limit, times of operation of the variable speed limit, placement of signs and method for controlling the variable signs
- written consent is obtained from the principal of the school concerned (agreeing to operate the school zone in accordance with the operating conditions)
- the speed limit is set by bylaw in accordance with Land Transport Rule: Setting of Speed Limits 2003.

6.2 Monitoring, review or removal of a variable speed limit in a school zone

It is important that a 40km/h variable speed limit that is installed in accordance with condition 5(b) of the Gazette¹ notice is monitored regularly to confirm the conditions of approval are being met (ie the mean speed of traffic in the school zone is no more than 40km/h when the 40km/h speed limit is operating). If traffic is not complying with the speed limit then safety within the school zone will be compromised and the road controlling authority will not be complying with its obligations under Land Transport Rule: Setting of Speed Limits 2003. The risk to children within the zone may be worse than without a variable speed limit, especially if their behaviour is influenced by a misconception that traffic will slow down.

A 40km/h variable speed limit in a school zone must be reviewed by the road controlling authority if:

- there is a change in the road or school environment resulting in the conditions specified by the NZTA in the Gazette¹ not being met, or
- requested to do so, in writing, by the principal of the school or the District Road Policing Manager of the NZ Police, or
- instructed to do so by the NZTA.

A 40km/h variable speed limit in a school zone must be removed by the road controlling authority if:

- the variable speed limit is not operated in accordance with the conditions specified by the NZTA in the Gazette¹, or
- instructed to do so by the NZTA.

Acknowledgement:

The NZ Transport Agency acknowledges the valuable input of the Christchurch City Council through the school zone trial and their assistance with the development of these guidelines.

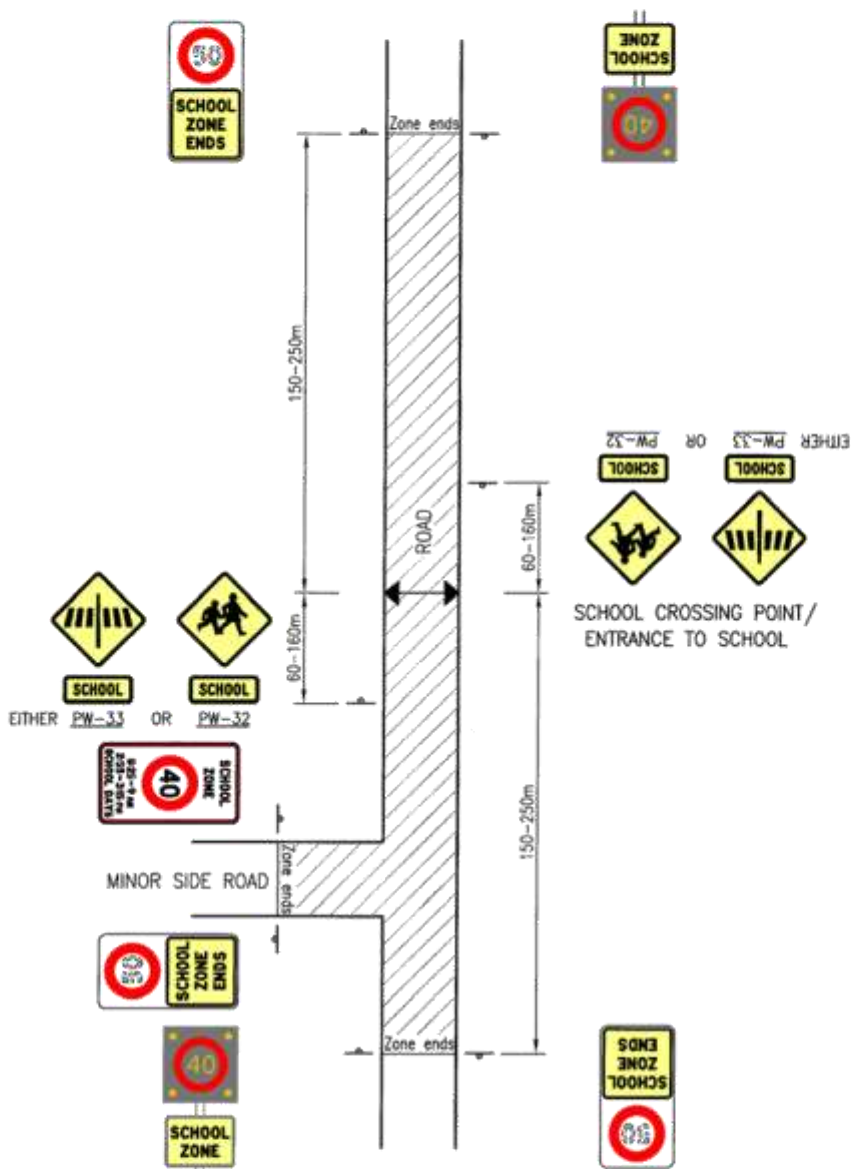
¹ *New Zealand Gazette* dated 21 April 2011, No. 55, page 1284 [see Appendix 2].

² Cottam, Paul. 2001. *Christchurch's 40 km/h part-time school speed zone trial: Community perceptions and attitudes*.

³ Osmers, Wayne. 2001. *The effect on vehicle speeds of electronically-signed part-time speed limits outside schools*.

Both papers were presented at the Road Safety Research, Policing and Education Conference 18–20 November 2001, Melbourne.

Appendix 1: Typical layout – 40km/h variable speed limit in a school zone



In this diagram the sign numbers quoted are those appearing in MOTSAM. These numbers and descriptions are cross-referenced to signs in Land Transport Rule: Traffic Control Devices 2004 (the TCD Rule) as follows:

MOTSAM	Description	TCD Rule
PW-32	Symbol of two children with 'School' supplementary	W16-4 with W16-5.1
PW-33	Symbol of pedestrian crossing with 'School' supplementary	W16-2 with W16-5.1

Appendix 2

Extract from *New Zealand Gazette*, 21/4/2011, No. 55, p. 1284

Variable Speed Limit in School Zones

Pursuant to clause 6.1 of Land Transport Rule: Setting of Speed Limits 2003 and a delegation from the NZ Transport Agency, I, Glenn Bunting, Network Manager, approve variable speed limits in school zones in accordance with the conditions set out in this notice.

Conditions

1. Variable Speed Limit

A road controlling authority may set a speed limit of 40km/h that operates in a school zone during the periods specified in condition 2 of this notice. At all other times, the speed limit is the permanent speed limit for the road.

2. Periods of Operation

The 40km/h speed limit may operate for a maximum period of:

- (a) 35 minutes before the start of school until the start of school;
- (b) 20 minutes at the end of school, beginning no earlier than 5 minutes before the end of school;
- (c) 10 minutes at any other time when children cross the road or enter or leave vehicles at the roadside.

3. Signs

Signs that comply with Land Transport Rule: Traffic Control Devices 2004 must be installed to mark the beginning and end of the variable speed limit in the school zone as follows:

- (a) At least one R1-6 "School zone variable" sign at each end of the variable speed limit on the main road outside the school, facing road users travelling towards the variable speed limit; and
- (b) at least one R1-6 "School zone variable" sign facing road users travelling towards the variable speed limit on each side road that intersects with the school zone, where that side road is a major road; and
- (c) at least one R1-6 "School zone variable" sign or R1-6.1 "School zone fixed" sign facing road users travelling towards the variable speed limit on each side road that intersects with the school zone, where that side road is a no exit road or is a minor road controlled by Give-way or Stop signs at the intersection with the school zone; and
- (d) at least one R1-7 "School zone ends" sign at each end of the variable speed limit on every road, facing road users leaving the variable speed limit.

4. Length of Variable Speed Limit

A variable speed limit in a school zone must be a minimum length of 300 metres, unless this condition is impractical, but should not be longer than 500 metres. The length of variable speed limit on side roads that intersect with the school zone may be shorter than 300 metres.

5. Warrant

A road controlling authority may set a variable speed limit in a school zone that meets the requirements in (a) or (b) as follows:

- (a) There is school-related pedestrian or cycle activity on the road outside the school, which exceeds approximately 50 children crossing the road or entering or leaving vehicles at the roadside, and traffic on the road outside the school meets at least one of the following conditions:
 - (i) the mean speed of free-running vehicles is greater than 45km/h (measured when the 40km/h variable speed limit is not operating); or
 - (ii) the 85th percentile speed of free-running vehicles is greater than 50km/h (measured when the 40km/h variable speed limit is not operating); or
 - (iii) there have been pedestrian, cycle or speed-related crashes near the school in the previous five years; or
 - (iv) the school-related activity in condition 5(a) occurs on a main traffic route; or
- (b) there is school-related pedestrian or cycle activity on the road outside the school, with children crossing the road or entering or leaving vehicles at the roadside and safe and appropriate traffic engineering measures are installed so that the mean operating speed of free-running vehicles on the road outside the school does not exceed 40km/h when the 40km/h variable speed limit is operating.

6. Bylaw

A road controlling authority must set a variable speed limit in a school zone by making a bylaw in accordance with Land Transport Rule: Setting of Speed Limits 2003.

Revocation and Replacement

The notice dated the 31st day of May 2005, and published in the *New Zealand Gazette*, 2 June 2005, No. 86, page 2051, relating to variable speed limits in school zones is hereby revoked and replaced by this notice.

A 40km/h variable speed limit in a school zone that was set in accordance with the conditions of the notice published in the *New Zealand Gazette*, 2 June 2005, No. 86, page 2051, is considered to be set in accordance with the conditions of this notice and remains in force until amended or revoked in accordance with Land Transport Rule: Setting of Speed Limits 2003.

Definition:

School zone means a length of road outside a pre-school, primary school, intermediate school or secondary school.

Signed at Wellington this 19th day of April 2011.

GLENN BUNTING, Network Manager.

402096

Traffic note 37 Revision 2 – page 11 of 11

9.3 QUEEN STREET UPGRADE - PROJECT COSTS**Decision Required**

Report To:	Engineering Services Committee
Meeting Date:	23 November 2017
Report Author:	Richard Kirby, Engineering Services Manager
Report Number:	RESC17-11-03

1 Summary

- 1.1 The Queen Street Upgrade Project has been in construction since February 2017. The section of Queen Street from Gladstone road up to Cambridge Street has been completed with the Cambridge Street intersection opened in early November 2017.
- 1.2 Stage 1 experienced significant delays for various reasons and has resulted in the project being 15 weeks behind schedule as at the end of July 2017. The consequential impacts on the timeliness and cost of the project was under significant threat. In April 2017 the contract was novated to Downer as a result of Downer purchasing Hawkins Infrastructure NZ Ltd.
- 1.3 In August 2017, we initiated discussions with Downer aiming to introduce a more collaborative approach to the contract. Downer agreed with this approach. We then worked through the contract, its risks and costs. The result is a lump sum contract with specific risks identified and allocated to the party most able to manage them.
- 1.4 Incorporating all the claims to date, the allocated risks and the lump sum contract has resulted in a total project cost of \$14,778,820 excluding GST. This is an increase of approximately \$947,000 on the total project cost outlined in November 2016. Within this project there have been additional costs of around \$2,086,700 for additional work and time claims.

Item 9.3

- 1.5 The available budgets for this project total \$14,554,423 excluding GST plus New Zealand Transport Agency (NZTA) funding of \$170,500 giving a total funding envelope of \$14,724,923 excluding GST.
- 1.6 Although the net funding gap is around \$54,000, there are variances within each of the four accounts that are funding this project. The stormwater account has surplus funds of \$350,000 which are proposed to be reallocated to the stormwater capital project account within the wider Richmond area.
- 1.7 The other three activity accounts have funding gaps with water (-\$242,000), wastewater (-\$45,500) and transportation (-\$116,500). It is recommended that the additional funding for water be approved and be funded by loan. It is intended that the additional funding for wastewater and transportation be funded from current budgets in the Annual Plan 2017/18.

2 Draft Resolution

That the Engineering Services Committee

- 1. receives the Queen Street Upgrade - Project Costs report, RESC17-11-03; and**
- 2. approves the transition of Contract 967 to a lump sum price contract with a lump sum of \$12,348,820 excluding GST; and**
- 3. accepts the forecast project cost of \$14,778,820 excluding GST; and**
- 4. approves additional loan funding of \$242,000 for the water activity; and**
- 5. notes the additional funding of \$116,500 for the roading activity and \$45,500 for the wastewater activity to be funded within the current budgets in the Annual Plan 2017/18.**

3 Purpose of the Report

- 3.1 This is a progress report on the Queen Street Upgrade project.

4 Background

- 4.1 At its meeting 10 November 2016, the Council considered a report on the Queen Street Infrastructure Project. It was considered public excluded given the commercial negotiations that could still occur prior to letting the contract. The resolution of the Council at the time was;
- a) **receives the Richmond Queen Street Infrastructure Project Report CN16-11-05; and**
 - b) **approves award of the contract to Hawkins Infrastructure New Zealand Limited at a price no greater than the tender sum of \$11,394,687.49; and**
 - c) **approves funding of the contract from the 2016/17 and 20-17/18 budgets for the Queen Street Upgrade of \$13,831,996; and**
 - d) **delegates the Chief Executive to sign the contract documents.**
- 4.2 Subsequent negotiations with the contractor resulted in a reduction in the tender price to \$11,290,927 (excluding GST). This was primarily due to a change in the pipe material from uPVC to polyethylene. The contract was subsequently signed by the Chief Executive.
- 4.3 Physical works commenced on 7 February 2017. It was intended that the work be completed in stages with each stage completed before commencing the next stage. This was to minimise the disruption to businesses and shoppers. The original completion date was 30 April 2018.
- 4.4 Prior to commencement of physical works in February 2017, Council staff and the contractor implemented a comprehensive communication plan and liaison with affected parties and specifically businesses on Queen Street. This communication has continued through the stages of the physical works. This liaison was a requirement in the tender documents comprising a permanent liaison person (SLO – Stakeholder Liaison Officer) located on site during construction.
- 4.5 When complaints are received further communication is initiated to clarify and mitigate any concern as effectively as possible. Whilst the contractors are striving to provide as much information about the works and how they will impact the businesses, it is not always practical to step businesses through each activity. Noisy activities such as saw cutting, sheet piling and compaction have been controlled to occur at the least disruptive times where practical.
- 4.6 In general all footpath work is done at night 3-4 times per week. Night work has been defined as 6pm till 7am. However the contractor has, when required, delayed commencing the night shift until 8:30-9pm to allow affected businesses to finish trading.
- 4.7 Stage 1 was from Gladstone Road to just past McIndoe Place. This stage was fraught with interruptions. These were primarily caused by unforeseen obstacles encountered underground. Utility services were also not in the same locations as identified in the as built plans. Originally Stage 1 was intended to be completed mid May 2017, however it was not completed and opened to the public until Saturday 5 August, 15 weeks behind schedule.
- 4.8 In April 2017, we were notified that Hawkins Infrastructure NZ had been purchased by Downer NZ Ltd and were asked if Contract 967 – Queen Street Upgrade could be novated to Downer NZ Ltd. We approved the novation and this subsequently occurred. This change in ownership did result in personnel changes on site which did compromise the momentum of the project.

- 4.9 The delays and the subsequent claims for extras and extensions of time during stage 1 meant that the way the contract was being delivered needed some attention. It was clear that delays and potential cost overruns were becoming more apparent and needed to be managed more effectively.

5 Collaborative Approach to Contract

- 5.1 In early August 2017, we arranged a meeting with the contractor at a senior level to assess opportunities to modify the way the contract was being delivered. This was a deliberate attempt to move towards a more collaborative approach, thereby better managing the risks and associated costs for the remaining stages of the project. The contractor was very open to this approach and expressed preference for such a change in philosophy in the contract.
- 5.2 Subsequent conversations with the contractor were held during August and September to obtain certainty around the following key points;
- Reviewing and finalising a realistic programme to completion based on the six stages that had already been identified;
 - Reviewing the schedule of quantities to determine the risks and associated costs with each of the items to project completion;
 - Assessing and agreeing on the numerous claims that had been submitted to date for extras and for extensions of time (EoT);
 - Apportioning risks with the aim of establishing a lump sum price for the contract.

Programme

- 5.3 The programme has been revised with a completion date of 31 May 2018 which is one month later than the original date of 30 April 2018. In order to make up time the contractor has been allowed to progress with below ground infrastructure beyond the closed stage. This largely comprises the stormwater infrastructure and may result in two stages being closed at any one time. With this amendment the contractor has indicated that with additional resources it will endeavor to recover lost time.
- 5.4 This is a big incentive for the Council as the project was 15 weeks behind schedule as at the end of July 2017. The contractor has programmed to regain at least 11 weeks of lost time with the aim of completion only four weeks behind schedule. As part of the negotiations we have agreed an incentive for the contractor to try and complete the project by 30 April 2018.
- 5.5 The revised programme focuses on installing below ground infrastructure in the leading stage whilst completing the road construction and street furniture in the second or following stage. The contractor has been asked, where possible, to locate the project hoardings to maximise the footpath space on each side to better facilitate public access to businesses.
- 5.6 The programme still allows for Queen Street to be opened from 2 December 2017 to 7 February 2018. All the hoardings and materials will be removed from site and the site made safe over this period.
- 5.7 Stage 2 which was originally scheduled to be completed mid July 2017 was opened to the public in September 2017.
- 5.8 Stage 3 was originally scheduled to be completed end of September and is now scheduled to be completed at the end of November 2017. The first part of stage 3 incorporating the Cambridge Street intersection was opened on 6 November 2017.

- 5.9 Stage 4 was closed in September 2017 to commence installing the stormwater pipe and other below ground services. Stage 4 will be reopened on 2 December 2017 and then reclosed on 7 February 2018 to complete below ground infrastructure and begin road reformation. Stage 4 will be completed early April 2018.
- 5.10 Stage 5 is scheduled to be closed on 7 February 2018 to complete below ground infrastructure followed by road reformation. It is scheduled to be opened mid-May 2018.
- 5.11 Stage 6 is scheduled to be closed mid-February 2017 and completed end of May 2018. This section only involves below ground infrastructure and has limited road formation other than the rebuilding of the Wensley Road roundabout.
- 5.12 The original contract included a bonus payment which was to be assessed on timeliness, public relations and minimising disruption. During the negotiations it was agreed to change the philosophy of the bonus payment to focus on timeliness. The bonus payment is now split with half available if completed by 31 May 2018 and the full amount payable if completed by the original completion date of 30 April 2018. It is a very tight target and it will require a 'fair wind' and focused attention by the contractor to complete in that time.

Schedule of Quantities and Claims

- 5.13 The Engineering Services activity report to the Committee on 17 August 2017 outlined some of the reasons for the delays that had occurred. These delays have resulted in claims for extra work and claims for extensions of time.
- 5.14 The unplanned activities that have impacted on the programme are summarised as follows;
- a) The old water main was incorrectly located in the contract documentation. This resulted in moving the new 375mm water pipe, the new 1200mm stormwater pipe and the 200mm water pipe 400mm sideways;
 - b) There was a sewer lateral clash with the new 1200 mm diameter stormwater pipe. This resulted in a new pump station on private property;
 - c) Contaminated soil – a layer of old coal tar seal was found in the road foundations. Coal tar contains contaminants requiring managed disposal in a landfill. This delayed progress whilst a solution was confirmed. Subsequent excavation is slower than programmed;
 - d) Argentine ants – this pest has been identified and the whole of Queen Street is infested;
 - e) The existing 300mm stormwater pipeline was deemed to be in good shape. However, once exposed it was found to be either old earthenware broken pipe or old concrete butt ended pipe with 10mm gaps between the pipes. This has had to be replaced;
 - f) A firefighting chamber outside the entrance to 281 Queen Street had to be replaced as it did not meet the new firefighting requirements. This resulted in the power cables and ducts having to be relocated;
 - g) Numerous services were found that were not on the Council's as-built plans. This has resulted in occasional disruption to services or time spent confirming whether the infrastructure was 'live' or abandoned;
 - h) Clay subgrade found on the parts of the road subgrade which has required extra undercut and pavement rebuild.
 - i) Change in trenching methodology from trench shielding to sheet piling for the deeper 1200mm diameter stormwater pipe. This was due to soft ground conditions.

5.15 All the claims associated with these have been discussed with the contractor and amalgamated into the proposed lump sum price.

Risk Apportionment

5.16 It was necessary that we worked with the contractor to identify all the risks that were in the remaining part of the contract and assessed who best should carry those risks. We were keen for the contractor to take on any risks it could manage and to price them accordingly.

5.17 In order to put more certainty into the contractor's pricing of risk, we have retained responsibility for the following risks;

- We are responsible for sheet piling at an agreed rate up Queen Street beyond the ASB Bank. We have been able to reduce the depth of the stormwater reticulation in this area to reduce this risk. This change in level will not affect the performance of the stormwater reticulation.
- We are responsible for soft ground remediation associated with the stormwater pipe. Raising the stormwater reticulation will also reduce the risk of this occurring. The ground is becoming more stable as the project progresses up Queen Street.
- We are responsible for paying the landfill disposal fee for any future contaminated material that is encountered.
- We are responsible for remedying any significant stormwater/water/sewer reticulation clashes.
- We are responsible for any change in what has already been scoped.

5.18 The contractor undertook to complete an assessment of its risks. These were largely focused around;

- The contractor is taking responsibility for the accuracy of the quantities in the schedule. The schedule included provisional sums for various components and the contractor has scoped these out more accurately. This also required a review of the quantities which the contractor has completed and priced.
- The contractor is taking responsibility for any weather delays that resulted in extensions of time up to two weeks per stage.

5.19 After completing the risk allocation exercise and pricing the various risks, we met with the contractor to finalise details within the schedule to determine a lump sum price. The contractor then finalised the schedule and presented a proposed lump sum price.

5.20 We also discussed the claims for extras and extensions of time that had been received to date. Most of the claims relate to additional work and we have accepted that we need to fund these. The claims for extension of time have been negotiated and agreed. They are somewhat less than what was previously indicated.

5.21 This revised schedule and lump sum price was reviewed by Stantec to ensure that it fairly reflected the contract in respect of the claims, quantities and the rates. Stantec has confirmed that Council is obtaining fair value for the change in the philosophy on the contract.

Lump Sum Price

5.22 A lump sum price has been tentatively agreed with the contractor until final approval of the Council. The development of the lump sum price has incorporated the allocated risks as

outlined in this report. It also includes all the claims and 'extension of time' claims that had been received.

- 5.23 The following table outlines the contract price and budget as presented to the Council in November 2016. It also includes the lump sum price and total project cost as negotiated with the contractor.

Item	Cost Estimate November 2016	Forecast November 2017
Contract 967 : Downer		
Schedule	\$ 10,109,827	\$ 10,482,113
Risk Allowance	\$ 1,181,100	
Stormwater		\$ 705,000
Water		\$ 310,000
Wastewater		\$ 69,000
Transport		\$ 330,457
Contract Management		\$ 322,300
Claim (EoT)		\$ 129,950
Contract Lump Sum Price	\$ 11,290,927	\$ 12,348,820
Project Management	\$ 2,541,069	\$ 2,210,000
Contaminated Soil (Landfill Fees)		\$ 220,000
Project Total	\$ 13,831,996	\$ 14,778,820

Table 1 : Comparing the Budgeted Project Total in November 2016 with the Forecast Project Total

- 5.24 The contract lump sum price is approximately \$1.058 million more than the contract price signed in November 2016. The overall project cost is \$947,000 greater than what was envisaged in November 2016. The details behind these figures are outlined later in this report.
- 5.25 The additional costs outlined in the schedule part of the contract totals around \$373,000 (\$10,482,113 - \$10,109,827). The costs are associated with transferring the contract from a 'measure and value' contract to a 'lump sum' contract. In effect the contractor has reviewed the schedule and identified where the quantities are likely to change. Some of the scheduled items have decreased and others have increased. The contractor has also included a price for the additional risk associated with the change in contract. The net effect is the additional \$373,000.
- 5.26 The forecast in Table 1 also includes around \$1.737 million for additional work in the four main activities; stormwater, water, wastewater and roading.
- 5.27 The following tables outline the detail behind these additional costs. These costs have been allocated into three types; firstly those that are a result of changes in scope, secondly those that relate to the need for new infrastructure and described as new scope and the thirdly those that relate to unplanned or unforeseen aspects that were encountered as the project progressed.
- 5.28 Table 2 outlines the details contributing to the additional stormwater costs;

Activity	Amount	Type	Examples of unplanned items
Stormwater	\$213,800	Change	Changes to sump details
			Change trenching methodology from trench shield to sheet piling
			Extra costs associated with manhole MHA1
	\$370,000	New Scope	Replacement of an existing section of 300mm stormwater pipe – pre contract design investigations did not identify that the existing pipe is defective and should have been part of the contract
			\$121,200
	Undercutting soft clay and remediating the founding soil for the 1200 mm stormwater pipes		
Total	\$705,000		

Table 2: Showing details around the additional stormwater costs

5.29 Table 3 outlines the details contributing to the additional water costs;

Activity	Amount	Type	Examples of unplanned items
Water	\$149,000	Change	Extra water connections
			Extra thrust block work required around fire mains
	\$108,700	New Scope	Installation of Double Check Valves at the water meters
			Extra valves to future proof the reticulation
	\$52,300	Unplanned	A connection required between the 375 mm and 150 mm diameter water mains at Cambridge Street
			Extra work required and extra fittings to liven the 375mm main water pipe and future proof connections to key buildings example to the Richmond Mall
Redesign and construction of the fire main connection at the entrance to 281 Queen Street			
Total	\$310,000		

Table 3: Showing details around the additional water costs

5.30 Table 4 outlines the details contributing to the additional wastewater costs;

Activity	Amount	Type	Examples of unplanned items
Wastewater	\$10,200	Change	Extra costs to replacement of sewer laterals
	\$0	New Scope	
	\$58,800	Unplanned	Gravity sewer clash with new stormwater pipe required construction of a new pump station
Total	\$69,000		

Table 4: Showing details around the additional wastewater costs

5.31 Table 5 outlines the details contributing to the additional transportation costs;

Activity	Amount	Type	Examples of unplanned items
Transportation	\$193,357	Change	Extra scope in accommodating NTL power cabling
			Temporary traffic islands
			Extra detailing required to the tree pit planters
			Change to leaner bars at refuge islands
			Different surfacing detail around the slot drain
	\$67,200	New Scope	Extra details for light poles
			Extra street signage not included in the contract
			Change from asphalt to a paved area with extra street furniture in front of the library
	\$69,900	Unplanned	Up lighting to selected trees
Extra pavement works at the Gladstone traffic lights to marry in the existing pavement and reworked basecourse			
Total	\$330,457		

Table 5: Showing details around the additional transportation costs

5.32 Table 6 outlines the details contributing to the additional contract management costs;

Activity	Amount	Type	Examples of unplanned items
Contract Management	\$21,000	Change	Extra traffic management measures – e.g. VMS boards on the key surrounding roads
			Service cover adjustments in the pavement area – all services
	\$0	New Scope	
	\$101,300	Unplanned	Unknown service obstructions – all types of services and relocating infrastructure due to inaccuracies in the as built plans
			Identification of a coal tar layer in the existing pavement deemed to be ‘contaminated’ and requiring disposal to landfill
\$200,000			
Total	\$322,300		

Table 6: Showing details around the additional contract management costs

5.33 The ‘extension of time’ component largely relates to the claim made on Stage 1. The claim was potentially much greater than what had already been claimed. The 15 week delay also impacted on the programme and the costs associated with the shutdown between 2 December 2017 and 7 February 2018. Both the extension of time and the costs associated with the shutdown were negotiated and agreed at \$129,950.

5.34 In negotiating the transfer to a lump sum contract, the Council is still carrying some risk with aspects of the project. These risks are outlined in section 5.17 above. The forecast project total includes a risk component amounting to \$150,000. This may or may not be utilised, but it is available should it be needed.

6 Funding Options

6.1 Table 1 outlines the forecast project cost of \$14,778,820.

- 6.2 The combined budgets allocated to the Queen Street Upgrade project for both the 2016/17 and 2017/18 years total \$14,554,423. These have been allocated to the various activities as shown in Table 7. Table 7 also outlines the breakdown of the forecast project cost into the four main activities and shows the shortfall in funding, totalling \$224,397.

Activity	Approved budgets 16/17 & 17/18	Project Forecast	Variance
Stormwater	\$ 6,589,998	\$ 6,240,420	\$ 349,578
Water	\$ 2,273,208	\$ 2,514,400	-\$ 241,192
Wastewater	\$ 484,973	\$ 530,600	-\$ 45,627
Roading	\$ 5,206,244	\$ 5,493,400	-\$ 287,156
Total	\$ 14,554,423	\$ 14,778,820	-\$ 224,397

Table 7: Comparing the combined Budgets 201/17 & 2017/18 against the Project Forecast.

- 6.3 The stormwater activity has a surplus of just under \$350,000. It is proposed that this be re-allocated to other stormwater capital projects being undertaken in the wider Richmond area.
- 6.4 The additional funding required for the water activity is around \$241,000. Most of the capital budgeted for water projects around Richmond has already been allocated. It is therefore recommended that funding be increased to cover this \$241,000.
- 6.5 The additional funding required for the wastewater activity is around \$45,500. This is proposed to be funded from the current wastewater pumpstation renewal budget. The wastewater pumpstation account has been recommended as there was a new wastewater pumpstation installed in Lower Queen Street as part of the stage 1 works.
- 6.6 The roading work undertaken as part of this upgrade was originally going to be funded without financial assistance from NZTA. However the road sealing component of the upgrade has attracted financial assistance of around \$170,500. This reduces the shortfall of around \$287,000 down to around to \$116,500.
- 6.7 The additional funding required for roading is \$116,500. This is proposed to be funded from the current non-subsidised renewal account.

7 Strategy and Risks

- 7.1 The original measure and value form of contract for this type of work was exhibiting significant risk timeliness and cost.
- 7.2 The Council has approached the contractor with the aim of transferring the contract to a lump sum contract incorporating risk identification and allocation.
- 7.3 The Council still carries risk and an allowance of \$150,000 has been included in the forecast project cost to cover this risk.

8 Policy / Legal Requirements / Plan

- 8.1 There are no policy or legal requirements associated with this report. The change from a measure and value contract to a lumps sum contract has been negotiated and agreed with the contractor.

9 Consideration of Financial or Budgetary Implications

- 9.1 The funding for the project is provided for in both the Annual Plan 2016/17 and the Annual Plan 2017/18. The shortfall is being funded from current budgets in the Annual Plan 2017/18

10 Significance and Engagement

- 10.1 Although this project has a high profile, it is not significant in terms of the Council's significance policy.
- 10.2 There is no need to undertake any specific consultation over the change in the way it is being delivered. Consultation and communication with the affected stakeholders and businesses in Queen Street will continue until the project is completed.

Issue	Level of Significance	Explanation of Assessment
Is there a high level of public interest, or is decision likely to be controversial?	Medium	There would be a reasonable level of public interest in the delivery of the Queen Street Upgrade Project.
Is there a significant impact arising from duration of the effects from the decision?	Low	The impact of this decision is low in that it relates to a project that provides a greater level of service across several activities.
Does the decision relate to a strategic asset? (refer Significance and Engagement Policy for list of strategic assets)	Low	The decision on relates to components of strategic assets namely roading, stormwater, water and wastewater.
Does the decision create a substantial change in the level of service provided by Council?	Medium	The decision does improve the ambience of the Richmond town centre whilst also providing an overland flowpath for stormwater during heavy rain events, thus minimizing the risk of property inundation.
Does the proposal, activity or decision substantially affect debt, rates or Council finances in any one year or more of the LTP?	Low	This does not substantially affect debt, rates or Council finances in any one year of more of the LTP.
Does the decision involve the sale of a substantial proportion or controlling interest in a CCO or CCTO?	Low	This does not involve any sale at all.
Does the proposal or decision involve entry into a private sector partnership or contract to carry out the deliver on any Council group of activities?	Low	This decision does not involve entry in a private sector partnership it only involves changing the philosophy of a current contract Council has with a contractor..
Does the proposal or decision involve Council exiting from or entering into a group of activities?	Low	No not at all.

11 Conclusion

11.1 The contract that was signed late in 2016 encountered significant hurdles during stages 1 and 2. Council staff engaged with the contractor to manage the remaining stages of the project to ensure timeframes were established and worked to.

11.2 Additional costs arising from unforeseen circumstances and changes in scope have occurred. Although these additional costs are around \$950,000, the shortfall in funding is around \$404,000.

12 Next Steps / Timeline

12.1 The project will continue to be delivered in accordance with the programme outlined in this report.

13 Attachments

Nil

9.4 ENGINEERING SERVICES - ACTIVITY UPDATE

Information Only - No Decision Required

Report To:	Engineering Services Committee
Meeting Date:	23 November 2017
Report Author:	Richard Kirby, Engineering Services Manager; Dwayne Fletcher, Activity Planning Manager; Russell McGuigan, Programme Delivery Manager; Jamie McPherson, Transportation Manager; Mike Schruer, Utilities Manager
Report Number:	RESC17-11-04

1 Summary

- 1.1 This report provides a summary of Engineering Services operational activity during the past six weeks.

2 Draft Resolution

That the Engineering Services Committee receives the Engineering Services - Activity Update report, RESC17-11-04.

3 Purpose of the Report

- 3.1 This report provides an update on Engineering Services operational activities during the past six week period.

4 Management Update

- 4.1 Staff continue to be very busy preparing Activity Management Plans and the Long Term Plan. We are also into the “high” season in terms of operations and maintenance work on our roads with pavement repairs prior to resealing, new footpaths, general road maintenance, weed spraying and mowing in full swing.
- 4.2 We are close to finalising the new contract for our 3-Waters operations and maintenance programme. This is a significant contract for the Council with an investment in excess of \$3 million each year.
- 4.3 We have two new staff members arriving this month. Bob Bartlett, Senior Asset Systems Officer and Robert Deck, Graduate Transport Engineer. Bob is moving from Auckland while Robert is currently based on the West Coast.
- 4.4 On the flip side, Chris Pawson, our Road Operations and Safety Coordinator has resigned and is returning to Nelson City Council in early December.
- 4.5 We have recently drafted ‘license to occupy’ documents to allow business to utilise the upgraded Queen Street space in the Richmond Town Centre. This is primarily focused on eatery and café businesses. These have been sent to businesses which have expressed an interest in utilising street space.
- 4.6 The license includes fees and requests have been made for the Council to reduce these fees for a period of time in consideration of the disruption experienced by these businesses during the Queen Street upgrade. This will be the subject of a further report to Council at the meeting in December 2017.
- 4.7 The Engineering Services Manager has attended public meetings and drop in sessions on the Waimea Dam consultation. There have been significant requests for information related to the Waimea Dam proposal. This has added to the current priorities that staff are working on in various areas.
- 4.8 We have also received some positive feedback on the painting of centrelines on rural roads within the district. This appears to be a positive change in the Council’s strategy on road maintenance.
- 4.9 The rural water supplies have some contingent liabilities and risks that will need serious attention in the near future. Although we have recently focused on the treatment of rural water supply schemes there are other risks that need attention. These are summarised as follows:
- Pipe deterioration, in particular PE pipes installed in the 1970s in the Dovedale and Redwood Valley water supply schemes.
 - Protecting access to pipelines and reservoirs on private property
 - Develop protocols to ensure all customers, landowners and the Council understand respective obligations and practices.

- Implementing compliance with the Water Supply Bylaw (direct connections, removal or tampering with restrictors, minimum storage).

4.10 These are reasonably significant issues and will impact users within all of these rural water schemes. In order to make progress it is proposed that the Council consider re-activating the Rural Water Supply committees to help resolve them. We will come back to the Engineering Services Committee with more detail and a way forward.

5 Activity Planning

Planning, Policy and Regulatory Group

5.1 The table below provides a summary of key work streams.

Project	Description	Status	Comments
Transportation: Strategic Policy and Research			
District Car Parking Strategy Review	Planning process – develop a strategy for management of parking resource in the district especially Richmond Town Centre, also TRMP parking requirements.	Delayed	Staff are preparing a formatted version of the draft strategy for consultation approval by the Council in December. Progress has been slow due to staff vacancies earlier in the year, and then available staff time being prioritised for development of Activity Management Plans, the Regional Land Transport Programme and the Long Term Plan.
Richmond Network Operating Framework	In conjunction with Tasman District Council, a Network Operating Framework (NOF) and Network Improvement Plan is being developed to better understand the current and future transport demand, and consider intervention options that make best use of the existing local and state highway network. This is in response to the NZTA’s Richmond Arterial Strategic Case – SH6.	On Track	NZTA staff are leading the project with support from AECOM consultants. Staff from both Tasman District and Nelson City Councils are also members of the project steering group. A stakeholder workshop was held in July 2017 where agreement was reached on the hierarchy of the network and functional levels of service. The next step is for the steering group to undertake modelling of current and future predicted traffic to identify areas for improvement.

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Project	Description	Status	Comments
Transport Strategic Case	The Council is required to prepare a strategic business case for its road maintenance and renewals programme in order to secure funding from the National Land Transport Fund.	On Track	Staff have now submitted a draft strategic business case to NZTA which has been received positively and used as an example of good practice nationally, although they have expressed some concern on the increase in resurfacing and rehabilitations from the previous three years. Staff are now finalising the document to fit within the Council AMP template and NZTA expectations.
Public transport review	Review of potential public transport services in the District.	On Track	Feasibility assessment completed and formally reported to the Regional Transport Committee that Wakefield and Motueka services are unfeasible as a traditional service. However, a Richmond extension/Loop should be investigated further and a business case undertaken. A Richmond Extension/Loop has been included in the draft LTP. A report will be submitted to Full Council in December asking it to accept the RTC'S recommendation.
Stormwater: Strategic Policy and Research			
Richmond Catchment Management Plan (CMP)	An integrated catchment wide plan for stormwater management. The plan will identify and address key issues such as water quality, quantity, stream health and effects from developments in a holistic manner.	On Track	Internal sessions have been organised for staff to provide input into an overarching stormwater strategy for the district. A first draft strategy is currently being development. Data collection for CMP Richmond has been finalised and data processing is currently underway
Richmond stormwater modelling	A stormwater model for Richmond to identify locations that are at risk of stormwater flooding in 1% and 10% AEP events	On Track	Initial results from the stormwater model have been provided to staff and are currently being assessed to identify future modelling scenarios and improvements.

Project	Description	Status	Comments
Motueka integrated flood modelling	An integrated flood model taking into account different aspects such as stormwater flooding, river flooding and coastal flooding.	On Track	Staff are currently scoping the model requirements and deliverables for an integrated Motueka flood assessment.
Discharge Consent	A resource consent is required for the diversion and discharge of stormwater from Council's public stormwater networks in accordance with the provisions of the Tasman Resource Management Plan.	On Track	A new approach and timeline has been agreed and this work has now fully commenced. A high level approach for the consent application has been agreed between the regulatory team in Council and work on a first draft consent application has commenced
Other Projects			
Development contributions review	Review development contributions policy, reviewing catchments, the way development contributions are calculated, and intensive housing provisions.	On track	Staff have tested and refined the new model using the proposed 2018 LTP project estimates. The initial charges were workshopped with Council in October 2017. Staff will now focus on updating the policy document.
Designations			
Designation review	TRMP roading (road widening) designations lapse in 2018.	On Hold	The project is reliant on the results from the Network Operating Framework (NOF) project. Work is on hold awaiting progress on the NOF.

Non-Revenue Water and Water Loss

- 5.2 At the previous Engineering Services Committee, the Council asked for information on non-revenue water and water loss in the Council's water schemes. This section provides some information on this topic.
- 5.3 It is important to understand the difference between Non-Revenue Water and Real Water Loss. Non-Revenue Water (NRW) is defined as all water that has been produced and does not generate revenue. NRW includes the following categories:
- Unbilled Authorised Consumption (fire services and training, maintenance flushing);
 - Apparent Losses (result in lost revenue through meter inaccuracies, illegal use or theft);
 - Real Losses (reticulation leakage, overflows at reservoirs).
- 5.4 Real water losses make up the majority of NRW in most water schemes and are often the focus for reporting purposes. Figure 1 below provides a summary of the different types of water use and illustrates how water losses make up only part of non-revenue water volumes.

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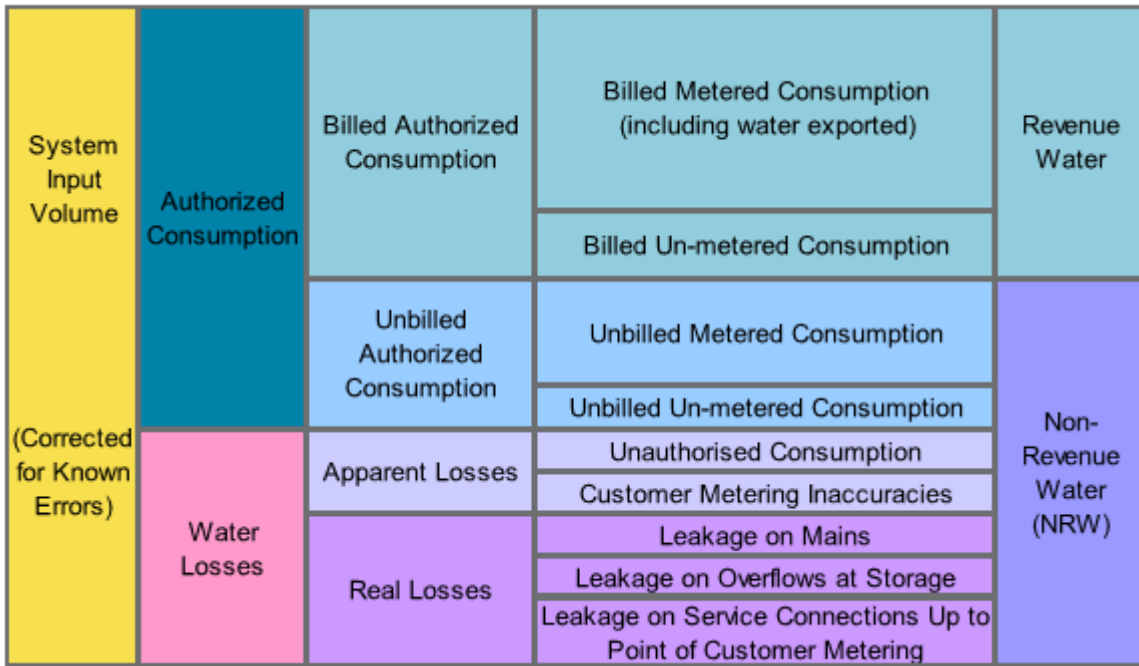


Figure 1: Types of Water Use

Monitoring water loss

5.5 Water loss is a critical factor in managing all water supply schemes in Tasman and around New Zealand. At any given time, there will be losses occurring in some part of our network. How much leakage occurs on any scheme can vary significantly depending on a number of factors including:

- Operating pressures;
- Pipe age;
- Pipe material; and
- Poor installation.

5.6 Staff are aware of the impact water loss has on our networks and have various tools available to monitor losses, including:

- Changes in daily water production which is graphed and reported on each week;
- Night flow monitoring through our SCADA system by looking at flow into the system during the period from approximately 1:00am to 5:00am when normal usage should be at a minimum;

5.7 When leaks are suspected, targeted leak detection is carried out to locate leaks using specialised detection equipment and repairs are carried out.

Measuring and reporting real water loss

5.8 There are a number of methods to calculate and express real water loss. All methods suffer from inherent uncertainties and results can be volatile.

5.9 For simplicity for our annual reporting, we compare the loss as a percentage of water input, making an allowance for estimated unbilled meter consumption, customer meter inaccuracies and water used by urban extensions on a restricted supply. Our target for 2016/2017 was less than 29%. For our urban schemes combined, the overall real loss was estimated to be 21% in 2016/2017, although four individual schemes did not meet this

(Kaiteriteri, Tapawera, Wakefield and Upper Takaka). The proposed target for 2018/2019 is less than 25%.



- 5.10 This is a different measure to that used by Stantec in a recent report to Council. The Stantec report references all Non-Revenue Water (this includes apparent loss and real loss) whereas we only report real water loss in the Annual Report, hence the figures are not comparable.
- 5.11 It should also be noted that measurements used to report water loss represent a snapshot in time. Water loss can escalate quickly and is influenced by several daily and seasonal variations, and consequently results can vary significantly from year to year. For example, a large pipe burst in Mapua can significantly influence the scheme's annual water loss data. Another example is a recent leak in Murchison, where a small leak on the water main on Fairfax Street significantly affected the overall annual water loss rate for that particular settlement.
- 5.12 Water New Zealand publishes water loss data annually, allowing us to compare our estimated water loss against other water suppliers across New Zealand. Real losses in our networks are comparable to other networks around the country. Tasman District Council is considered a medium sized water supplier and performs relatively well compared to its peers. Tasman achieved the eighth lowest water loss out of 23 medium-sized suppliers.


What does this mean for the Waimea Community Dam?

- 5.13 It was suggested in public forum at the previous Engineering Services Committee meeting that the Council would not need the Waimea Community Dam (WCD), if it eliminated all water loss in the urban networks serviced by the dam – Brightwater, Hope, Richmond and Mapua. This is incorrect.
- 5.14 In the urban (and rural extension) areas that will be serviced by the proposed WCD, real water losses are estimated to be around 24% - or around 2,500 m³ per day. That indicates the network is performing reasonably well given its age, make up and extent.
- 5.15 It is not practically achievable or economic to eliminate water loss from a water network. The Council would need to invest tens of millions of dollars replacing its water reticulation to get a marked improvement, but would still not be able to eliminate water loss. Even new reticulation built to modern standards leaks.
- 5.16 Should the Council make this investment and be successful at significantly reducing water loss, it will not help address the wider issue of over allocation of water resources on the Waimea Plains. Consequently, rationing to stage 3 in 9 out of 10 years will still occur. The rationing rules for the Council's water supplies act as a sinking lid. Over time, the Council will have less and less water to supply to its customers at times of rationing, forcing more and more draconian water saving measures.
- 5.17 Nor will water loss reductions provide for long-term growth. The total amount of water loss in the schemes serviced by the proposed WCD would amount to 15 years of land supply growth in those communities - assuming we could actually achieve zero water loss, and maintain that in perpetuity.
- 5.18 Consequently, an augmented supply of water is still required.

Development Engineering

Key subdivisions

Subdivision	Sections	Description	Comments
 Application Stage			
Corner Salisbury Road/Arbor Lea Avenue (Richmond)	6	Three two-storey duplex units	Duplex complex replaces Veterinary Clinic. Commissioner has approved this development
Beechnest Drive (St Arnaud)	10	Residential application. Completion of previous consent.	Previous consent lapsed
Boomerang 2 - Stringer Road/Old Coach Road/Moutere Highway	135	Rural residential unserviced. Consent granted	Developer considering earthworks and stages
Aranui Road (Mapua)	6	Pre application stage	Service constraints being assessed
 Engineering Plan Stage			
Tasman Holdings Waimea West Road (Brightwater)	12 Lots	Engineering plans received November 2017	Services available for wastewater and water. Discharging stormwater to soak pits and overland flows to Waimea West Road
Grey Street Stage 4 and 5 (Motueka)	26 Lots	Engineering plans received. Await amended resource consent to process	Site Works to commence in next two weeks based on approved plans for Stage IV
Lord Auckland Road (Wakefield)	24 lots	Engineering plans received November 2017	Earthworks to commence erosion and sediment control plan approved
Pastures (Richmond)	7 lots	Engineering plans approved	Seven residential lots served by existing Highland Drive

Subdivision	Sections	Description	Comments
			formation and a new right-of-way. Considerable geotech inputs
 Construction Stage			
Appleby Hills Stages 11-14 (Appleby)	23	The final stages of the Appleby Hills subdivision	Construction commenced
Utopia Lifestyles Ltd (Galeo Estates)	16	The next stage of the Galeo subdivision	Construction continuing
Mapua Land Holdings (Old Coach Road)	18	Rural residential subdivision	Construction continuing
Lower Queen Street Subdivision	64	64-lot subdivision off Lower Queen Street opposite NMIT	Roads about to be sealed. As-built plans yet to be submitted
Mapua Joint Venture	20	Final stage of 20 lots	Works Completed. 224 Certificate not yet issued
Puketutu Stage 3B (Motueka)	17	The final stage of the Puketutu subdivision	Construction continuing. Fill is being provided from cool store site on Queen Victoria Street
Harley Road (Tasman)	11	11 rural residential lots located off Harley Road	Engineering works completed. 224 Certificate not yet issued
Arizona – Hart Rise Stage 1 (Richmond)	52	Located in Richmond South along Hart Road and Paton Road. 132 residential lots in total over seven stages	Construction completed and as-builts approved
Carmello (Richmond)	15 Lots	Extension of Campari Drive. These sites will provide underground tanks for stormwater detention	Construction commenced

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Subdivision	Sections	Description	Comments
Mapua Coastal Village Stage 2	15 Lots	Second stage continuation of Iwa Road to install private wastewater pump stations. This site has an allocation of reticulated water for these lots	Construction commenced
Aporo Road Ruby Coast (Tasman)	15 Lots	Rural residential lots unserviced	Construction commenced

Featured Development – Boomerang 2 -135 rural residential lots

- 5.19 Boomerang is a 135-lot rural residential subdivision at the Western end of Stringer Road, inland from Mapua. The new sites will generally be self-serviced and approximately 1ha in size.
- 5.20 Engineering plans and earth works are being discussed with the landowner. They are likely to start work in the next couple of months, developing all sites over four years.
- 5.21 The proposed development has various walkway linkages between the new roads and a shared path linking Stringer Road with Old Coach Road. Because of complications with third party landowners and designing a safe intersection, there will be no direct link for vehicles between Eban Road and the Moutere Highway.
- 5.22 A look out point is proposed on the Moutere Highway (Lot 140) and an existing wetland will be enhanced on the gully floor (Lot 22).

Road Information Update (RAMM Database)

5.25 Our method of updating the RAMM (Road Asset Maintenance Management) database with new asset information has changed as a direct result of the new Tasman road maintenance contract. The contractor is now responsible for entering new assets into the database. They have the option of entering the data using a GPS capable mobile device in the field. These devices use Pocket RAMM™ which minimises data entry errors and streams live to the database.

6 Programme Delivery

Project Stage	Total
Preliminary Design	26
Detailed Design	10
Procurement	4
Construction	18
Grand Total	58

Tenders Awarded since last Report

ID	Name	Procurement Plan / Methodology	Date Contract awarded	Tender Value (Excl. GST)	Range of Tendered Prices	Contractor
1109	2017 Richmond South Water Main Facilitation Works	Developer agreement	05/09/2017	\$560,135.00		Chings Contracting

Projects in Preliminary Design Stage

ID	Name	Project Description	Project Status	Estimated Tender Upload Date	Comments
1059	Trewavas WWPS Emergency Storage	New emergency overflow storage	Cost		Cost estimates exceed current budget. Reviewing funding options. Potential to tender with Ledger Goodman pump station wetwell upgrade.
1058	Motueka New Water Treatment Plant	Design a new water treatment plant at Parker Street site to supplement the existing Recreation Centre supply.	Cost		Scope at Parker St site is to be confirmed once the preliminary design is finalised. The options are to account for staged development and water uptakes. Reviewing funding options. Geotech investigation is complete
1054	Takaka RRC Weighbridge	Installation of weighbridge and re-locating kiosk is currently on hold.	On-Hold		Project is on-hold. Future funding is required to complete works.

ID	Name	Project Description	Project Status	Estimated Tender Upload Date	Comments
1102	2017 Richmond Waverley Street New Water Main	New water main in Waverly Street to replace existing 1960's AC main.			Design in progress. Project scope reduced to design only, with tender upload and construction phase postponed until further notice.
1104	2017 Richmond Deviation Bund Drainage	Upgrade the inlet structures at Richmond Deviation and install new storm water system under the existing clay bund to elevate flooding at Arbor Lee Avenue	On-Hold		On hold until the flood modelling for Richmond is complete.
1110	2017 Wakefield Bank Enhancement	Building up 30 metres of embankment to stop town flooding – from modelling study.			Initial scoping has started.
1113	2017 Swamp Rd & Lower Queen St Intersection	Improve the intersection layout to allow heavy vehicles to turn safely.	On-Hold		On Hold due to lack of funding
1118	2017 Richmond Water Treatment Plant New Pipework	The work is to construct a pipe from the existing header in the plant to approximately a meter from the site boundary which will link up to a pipeline to be installed under Borck Creek. The design, drawings, specification and engineers estimate have been completed and the work now needs to be tendered and construction carried out.		15/11/2017	Procurement options are being explored. As the work involves specialist contractor work (pipe work) and is very similar to work required as part of the Kaiteriteri WTP, we are investigating adding the Richmond work to the Kaiteriteri contract as a variation.
1107	2017 District-wide Footpaths New & Rehabilitation	Construction of new and reconstruction of various existing footpaths across the district to a minimum standard width of 1.4 metres.		29/11/2017	Initial scoping underway to confirm sites.
1108	2017 District-wide Bridge Structural Components	Key structural repairs and replacements to identified assets within the 2017-18 financial period. Works are District-wide.		29/11/2017	Design, tender and build 2017/18. Option to combine work/funding across three financial years into a single contract is being pursued with NZTA.
1106	2017 District-wide Closed Landfill Cap Renewals	Inspection, renewal and improvement to capping and edge protection at priority sites.		13/12/2017	Preliminary work on prioritising sites underway.

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ID	Name	Project Description	Project Status	Estimated Tender Upload Date	Comments
1057	Pohara Stormwater Improvements	Upgrade infrastructure to mitigate flood impact.	Late	31/01/2018	Following Public Meeting options are being finalised. Next steps are to secure Resource Consents and Land agreements. Meetings with affected landowners are organised,
1112	2017 Riwaka-Kaiteriteri Rd Curve Widening	Investigate and construct localised curve widening for the worst corner on the Riwaka-Kaiteriteri Road from Stephen's Bay to Kaiteriteri Road.		07/03/2018	Priority of sites has been identified.
1115	2017 Waimea-West Challies Road Extension	Extend Challies Road eastwards of Waimea Road-East along the existing road reserve, over stop-bank then swing south and finish at trailhead/car-parking area beside fish out ponds (trailhead construction included in the project).		07/03/2018	Initial investigations and options underway.
1019	Wakefield New Water Source Pipeline	New Water Source for Wakefield Community		14/03/2018	Design of access road into site from State Highway started. Options report for connection point into Wakefield network or existing reservoir due in November.
1119	2017 Motueka New Caravan Dump Station	Design, consent, construct a new caravan dump point on Marchwood Park Road on Motueka Aerodrome land (Council-owned).		21/03/2018	A project plan is being developed. Funding is not yet in place from the Tourism Infrastructure Fund so all work is in-house at present and preliminary only. It is proposed to use a similar design to the Richmond Caravan Dump Station.
1101	2017 Waimea Water Treatment Plant Upgrade	Upgrade the Waimea WTP (flow to Mapua) to meet DWS.		02/05/2018	Option assessments are under review.
1120	2017 Mapua Stafford Dr-Aranui Rd Water & WW Upgrade	<ol style="list-style-type: none"> (AMP 96007) Construction of a new Stafford Drive WWPS (replacing Tait WWPS) and new rising main to Mapua Wharf WWPS. (AMP 96011) Upgrade of Ruby Bay WWPS including, greater pumping capacity (pumps and rising main), odour treatment, and emergency storage. 		16/05/2018	Options assessment report due February 2018.

ID	Name	Project Description	Project Status	Estimated Tender Upload Date	Comments
		3. (AMP 86026) Replace water pipes from Mapua Wharf along Aranui Road to Mapua Drive; Stafford Drive from Aranui Road to the junction with the main to Pomona Road Reservoirs; Stafford Drive to intersection at Brabant Drive.			
1098	2017 Brightwater Town Centre Upgrade	Investigation and design for renewal of streetscaping of Brightwater town centre.		27/06/2018	The inception stage has now been completed and signed off. Concept design is now underway.
1100	2017 Richmond Rezoning McGlashen Avenue	1) Connection from the end of McGlashen Street to Stratford Street across SH6 and NZTA Land. 2) Replacement and upsize of cast-iron main in Salisbury Road to enable rezoning from Arbor-lea Avenue through to McGlashen Street/Talbot Street.		04/07/2018	Discussions underway with NZTA to cross State Highway 6.
1105	2017 Takaka Resource Recovery Centre Upgrade	Upgrade of the Takaka RRC, including waste compactor, weighing system, bin storage, disposal pit & offload area, kiosk, recycling drop-off and storage and safety, drainage and security improvements.		04/07/2018	Initial scoping underway.
1039	Richmond Church Street Water Pipeline	May be included in Project 1071 - Washbourn Gardens Stormwater Diversion. New water line to replace the existing while maintaining water to properties.	On-Hold	30/08/2018	Potential for this work to be tendered in 2018/19 as part of the Richmond Stormwater upgrade project. Design yet to be completed.
1086	Poutama Drain Upgrade 2017/18	Upgrade of Poutama Drain for stormwater to meet growth of Richmond.	Land	05/09/2018	Negotiations with landowners and developers to acquire additional land for wider channel. This is needed to receive the stormwater from Washbourn Gardens.
1062	Borck Creek Widening Phase 2	Upgrade of Borck Creek from Poutama Drain confluence to SH60		01/07/2019	Work is focusing on an agreement with developers to dig the designation for fill. No construction planned this year.

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Projects in Detailed Design Stage

ID	Name	Project Description	Project Status	Estimated Tender Upload Date	Comments
1056	Pohara Water Treatment Plant Upgrade	Preliminary design is complete. This is to improve water quality and to comply with the NZ drinking water standards (DWSNZ).	On-Hold		Scope yet to be confirmed. Current budget will not be sufficient to fund the preferred membrane filtration option. Design only to be completed in 2017/18. The remaining funding has been transferred to the Collingwood WTP project.
1076	McShane Rd & Lower Queen St Intersection Upgrade	Minor Improvements Programme project to widen intersection and create a right turn bay into McShane Road from Lower Queen Street.	On-Hold		Due to financial constraints this job is on hold till July 2018.
1069	Collingwood WTP Upgrade	Upgrade treatment to meet NZ Drinking Water Standards	On-Hold		Additional water quality testing to be undertaken before concept design is completed.
1068	Goodman Park Wastewater Pump Station - Wetwell Rehab	Relining of Ledger Goodman Park wastewater pump station wetwell. Potential for this portion to be tendered with Trewavas WWPS Emergency Storage	Late		The mechanical/electrical work is to be procured via a variation to Contract 688, and wetwell coating completed by a wetwell coatings specialist
1116	2017 Professional Consulting Panel	Tender for new secondary Professional Services consultancy panel		04/10/2017	Tender closes 3 November.
1103	2017 Motueka Poole Street Stormwater Upgrade	To increase the stormwater pipe system capacity from the Jocelyn Street area, down Poole Street to link into the upgraded pipe installed along High Street to Fearon Street in 2018.		18/10/2017	This is out for tender and is due to start construction in January 2018.
1047	Richmond Bateup Road Widening	Widening of Bateup Road to provide for growth in Richmond South. Year 1 and 2 design, Year 3 construction.		27/10/2017	Tender documents are now out. Construction due to start February 2018.
1060	Lower Queen Street Stormwater	Stormwater upgrade in Lower Queen Street to enable development.	Land	01/11/2017	In design. Negotiations underway for land with developer. Construction planned for 2018.
1099	2017 Pohara Four Winds Pump Station & Rising Main	Upgrade the pump to meet current Council standards, capacity for growth, emergency storage and active odour treatment; Upgrade of the electrical and digital telemetry		07/03/2018	Preliminary design in progress. Consent applications underway. Tender upload date changed from 24/1/18 to 2/3/18 due to landowner consultation and consent timelines for geotechnical investigations to identify preferred site.

ID	Name	Project Description	Project Status	Estimated Tender Upload Date	Comments
		system, including capacity to connect to a backup generator; Rising main upgrade for growth and storm flow capacity.			
1071	Washbourn Gardens Stormwater Diversion	Washbourn Gardens Stormwater Bypass - new stormwater pipe from Washbourn Gardens to Poutama Drain to relieve stormwater flows on Queen Street including stormwater diversion from Gladstone Rd to Poutama Drain to allow the Washbourn Gardens Stormwater Bypass to cross Gladstone Road.		19/12/2018	Preliminary Design approved. Discussions have been held with NZTA and the other network suppliers.

Projects in Procurement Stage

ID	Name	Project Description	Project Status	Tender Close Date	Comments
1065	Three Waters Operational and Maintenance	New Three Waters Operations and Maintenance Contract, which will begin service on 3 July 2018. Key objectives are to efficiently and sustainably manage water, stormwater and wastewater services and networks, improve operational responsiveness, provide better data on the condition of assets, and reduce demand on Council's internal resources to manage day to day activities.		25/10/2017	Tender closed 25 October 2017. Evaluation team workshop completed and evaluation is now in progress. Target is to award contract by 20 December 2017.
1114	2017 Mapua Safety Improvements	<ol style="list-style-type: none"> 1. Higgs Road new footpath; 2. Mapua Drive shared path; 3. Mapua Drive pedestrian facility 		18/10/2017	Under evaluation.

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ID	Name	Project Description	Project Status	Tender Close Date	Comments
		4. Aranui Road/Stafford Drive safety improvements			
1025	Waimea Community Dam	A community driven project to enhance the urban water supply, public good, environmental effects and irrigation.	Land	10/11/2017	The tenders have been received and are now being assessed. The tender evaluation should be completed by mid-December 2017. Public consultation closes 26 November.
1111	2017 Motueka WWTP Wetland Restoration	Wetland restoration as part of the Motueka Wastewater Treatment Plant.			Plant purchasing in progress. Resource consent obtained. Soil testing completed. Changes to project timeline and carryover of capex to 2018/19 approved via change request signed 27/9/17. Two stage planting now in 2018 and 2019.

Projects in Construction Stage

ID	Name	Project Description	Project Status	Comments
1000	Kaiteriteri Replacement Wastewater Pipeline	Replace estuary pipeline with pipeline in road. Upgrade 2 pump stations. Improvements to local wastewater network.		Good progress being made on sewer main construction - main pipeline 90% complete. On track
1035	Maintenance Roading Network 2015-17	Maintain approximately 248km of both sealed and unsealed Local Authority Urban and Rural roads and streets within the Tasman District Murchison Network area. Contract has been extended 12 months to June 2018.		Extended via variation to contract to 1 July 2018.
1038	Mariri RRC - Compactor & Bin weighing system	New compactor and bin weighing system to be installed in conjunction with overall site development (P1091). Completion target is early October 2017		Practical completion awarded.
1040	Borck Creek Planting Programme	Planting programme for Borck Creek		Borck Creek has been planted. Poutama Drain planting on hold until scope of future widening is known.
1044	District-wide Water Meter Renewals	Three year water meter replacement programme throughout the District. These new manifold meters will significantly reduce time		Year 3 meter replacements in progress and on target to complete by June 2018.

ID	Name	Project Description	Project Status	Comments
		and cost for meter replacements in the future.		
1048	Motueka WWTP - Outfall Pipeline	As part of the overall Motueka WWTP upgrade, this contract is for the construction of the new pipeline, surge chamber and outfall structure which will improve the method of discharge into the South Channel (estuarine area) of the Motueka River.		Reviewing as built drawings
1050	Richmond Watermain Renewals (Fauchelle area)	Renew 100mm AC main with 100/150mm PVC. Includes rider mains and new meters in D'Arcy Street, Elizabeth Street, Fauchelle Avenue, Florence Street and Herbert Street. On track for completion in November.		Work is on track to be completed in November.
1067	Seismic Inspection and Remediation of Water Assets	Seismic strengthening of highest priority Water Reservoirs and associated structures has been extended to include Champion Road reservoir and is almost complete.		Construction complete.
1084	Streetlighting & Electronic Speed Sign Maintenance	Contract for the ongoing maintenance of street lights including electrical testing as well as speed within Council's road network.		In progress.
1088	Motupipi Carpark Improvements	Improvement works to Motupipi Carpark - 31 & 33 Motupipi Street, Takaka is now complete.		Work complete. Waiting on As-builts
1091	Mariri Site Development - Stage 2	Stage 2 - Temporary waste drop off area is in use. Pit improvements are complete. New compactor and bin weighing system - by subcontractor is due to be installed early October.		Practical Completion awarded.
1092	Waste Transport Services 2017-2023	Waste transport services.		In operation.
1093	Headingly Lane Gravity Sewer	Part of Lower Queen Street 3-waters upgrade to service growth in the area.		Awarded to Donaldson Civil. Works start December 2017. Contract pre-start meeting completed. The alignment has been adjusted to minimise issues with traffic management. Pot holing to locate the 350 water

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ID	Name	Project Description	Project Status	Comments
		Originally all under C1060 – split out in January 2017.		main running through the intersection of Headingly Lane and Lower Queen Street is targeted for next week, subject to TMP approval and contractor availability.
1094	Lower Queen Street Water and Sewer Pipelines	Renewal of watermain and installation of new sewer main.		Awarded to Downer NZ. Works start January 2018. Delayed owing to incorporation of LQS sewer in same road area.
1096	Tasman Road Maintenance 2017-2020	Road maintenance services for Tasman District (excluding Golden Bay and Murchison).		In progress.
1109	2017 Richmond South Water Main Facilitation Works	Development of the new trunk main from the Richmond Water Treatment Plant to the proposed future reservoir site in Richmond South.		Awarded to Ching Contracting Ltd. Work is progressing well with the majority of work completed in Paton Road around on to Bateup Rd. The interface with the separate Bateup Rd contract being tendered shortly has been finalised. A conflict between the existing 1400 dia aluflo drain on Bateup Road and the trunk water main has been resolved with some additional design work.
950	Kaiteriteri Water Treatment Plant Upgrade	Upgrade drinking water supply to meet NZ Drinking Water Standards		Awarded to Process Flow. Detailed design underway. A HAZOP workshop was completed last week with many finer details discussed. The site is now fenced and the contractor has their site cabin on site. Civil works are targeted for prior to Christmas. There is discussion about how the new bore (programmed as a separate project for next year) can be efficiently linked to the current project to avoid unnecessary work.
967	Richmond Queen Street Infrastructure	Replace services in Queen Street and reshape street. Streetscape	Late	<p>The main water pipe has been laid the full length of the street up to the Salisbury intersection and is now 'live'. The remaining AC water pipe is being removed during each stage of construction.</p> <p>Stage 1: This stage is complete and open to vehicles and pedestrians.</p> <p>Stage 2: This stage is complete and open to vehicles up to the library with limited vehicle access from the library to the Stage 3 construction gate. This stage includes the street scape works outside the library and abuts a separate Council project to upgrade the library outdoor area (a Parks & Reserves project). We are experiencing odd driver behaviour between the buffer strip, footpath and car parks – this has been compounded by not being able to drive through the street and doing U- turns.</p> <p>Stage 3: The stormwater, water and sewer pipework is underway. The Cambridge Street intersection will open mid-November and make a big difference to vehicle movements. The balance of this stage will be completed to a point opposite the Star & Garter pub by 01 December and a temporary ramp will join the new inverted road profile to the existing road profile to allow for a December and January construction break. This stage includes the street scape works which will extend the Sundial Square theme to the other side of</p>

ID	Name	Project Description	Project Status	Comments
				<p>Queen Street. A layer of blue, pug clay has been encountered for much of this stage requiring sheet piling to protect the new water main pipe from side collapse. This has significantly slowed down productivity and is likely to limit how much advanced pipe work can be done prior to the construction break. Work Programme – the revised programme has an end of construction target date being 31 May 2018 – 4 weeks later than the original contract completion date. A communication has been sent out to the property owners and their tenants informing them of the impact of the revised stage dates.</p> <p>Costs - significant unplanned costs to date include:</p> <ul style="list-style-type: none"> • Replacing a 300mm diameter stormwater pipe that was originally deemed to still be in good condition • Disposing of a layer of old coal tar in the road pavement to landfill

7 Utilities

Health and Safety Lead Indicators (Audits/site observations) - 1 July 2017 to date

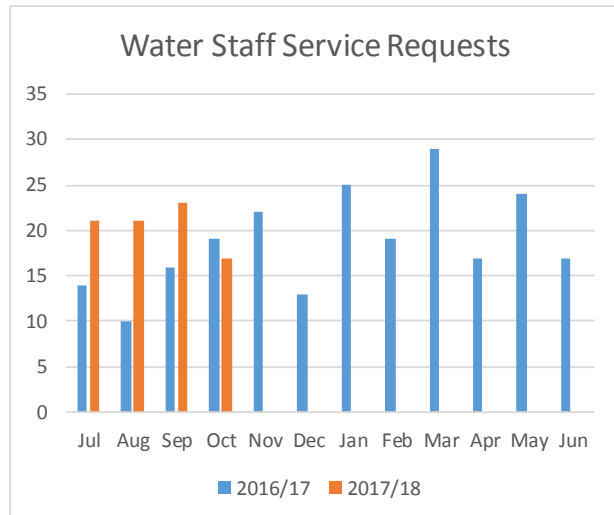
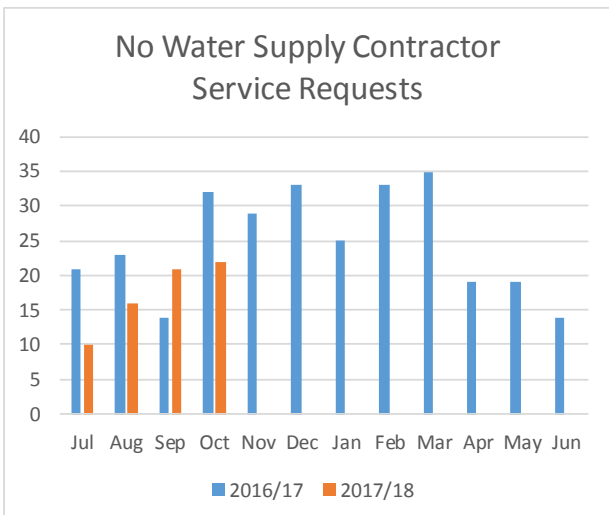
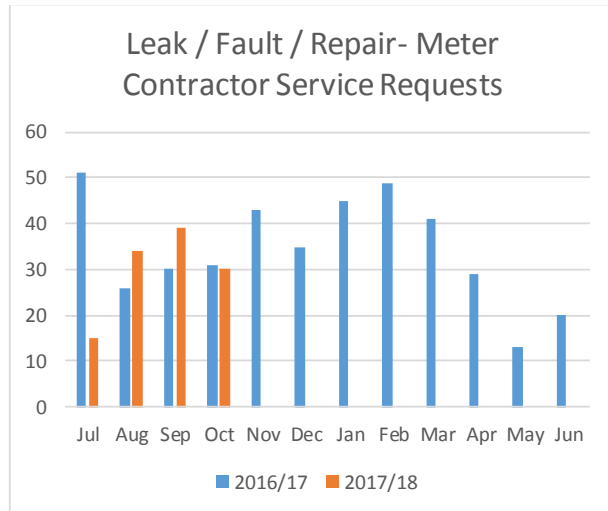
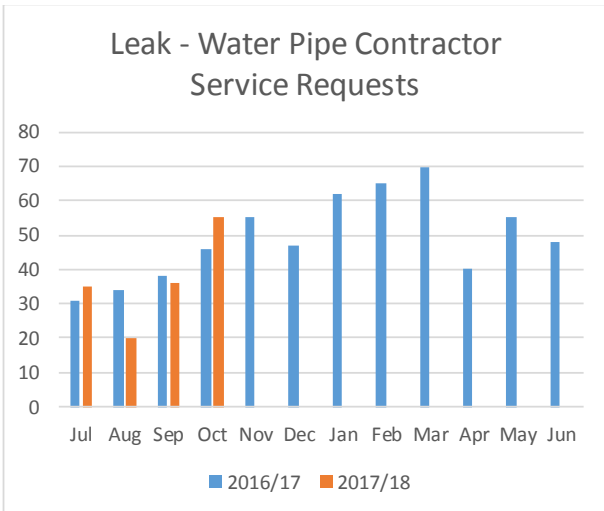
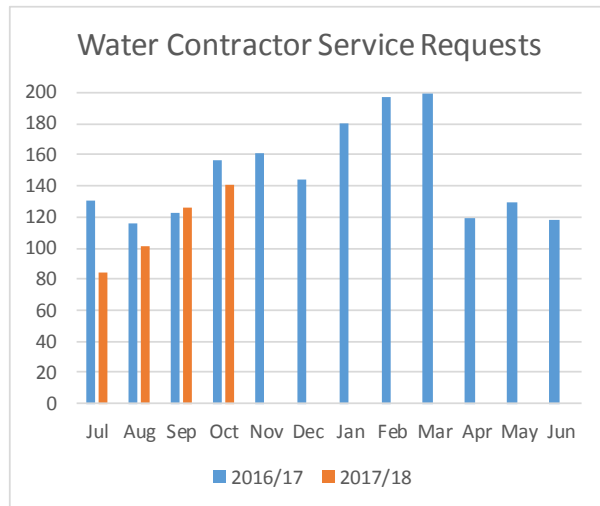
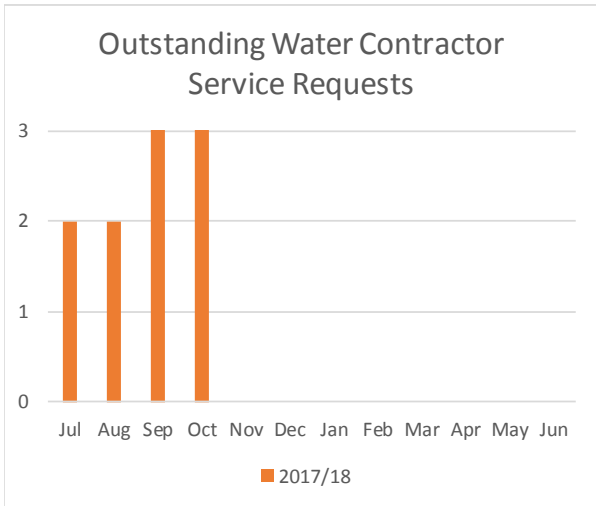
Measure	Total
H&S Risk Assessments	0
H&S Observations	0
H&S briefings (also as part of regular meetings)	18
Number of H&S courses attended by staff	1

Customer Service Request Trends

Water Supply

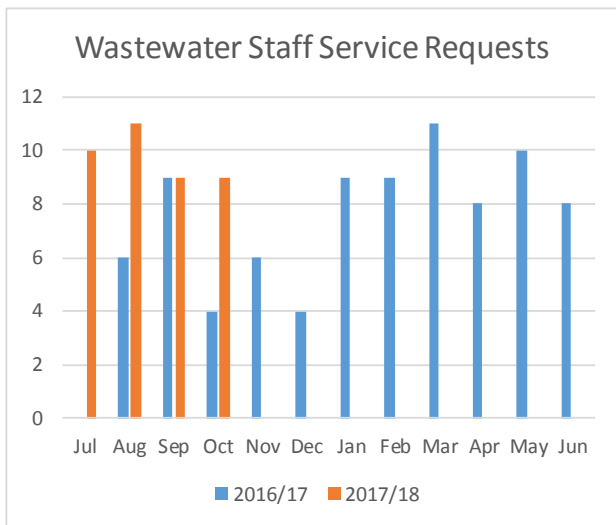
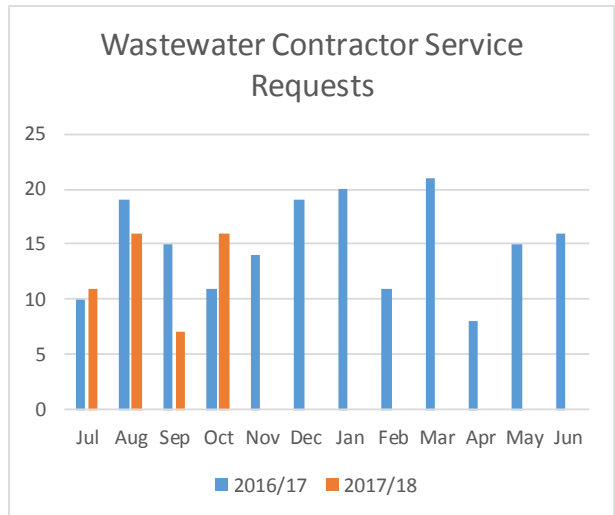
7.1 Contractor service requests are tracking lower than the same time last year, while staff service requests are up.

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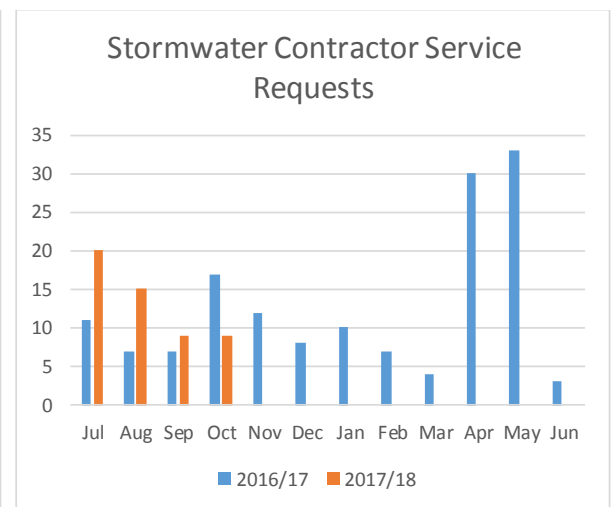
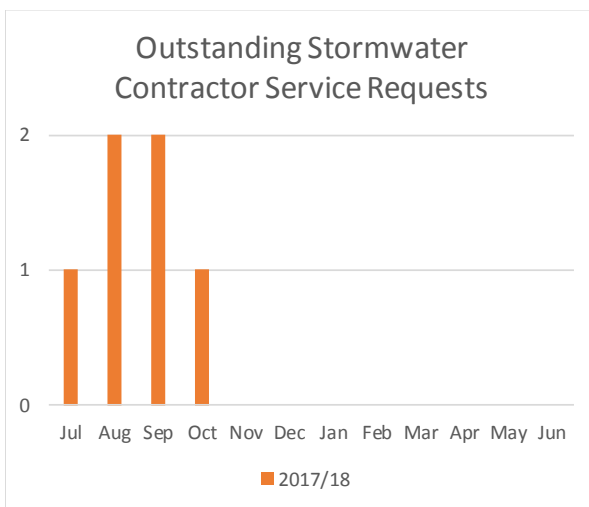
Wastewater

7.2 Staff service requests are higher than last year.

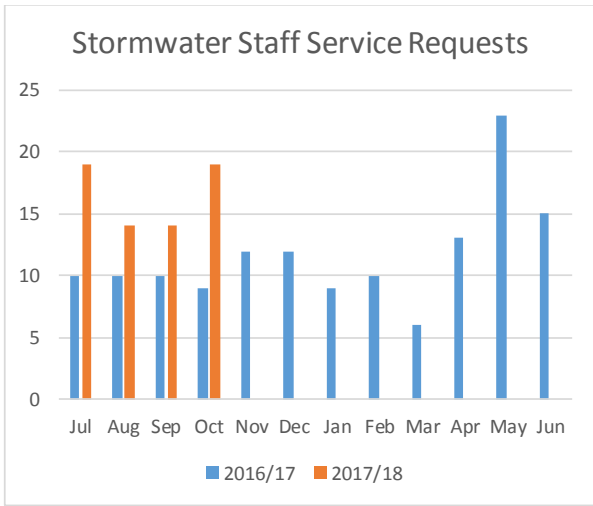


Stormwater

7.3 Requests are higher than last year. A number of these relate to flooding as a result of the wet weather in July and August.

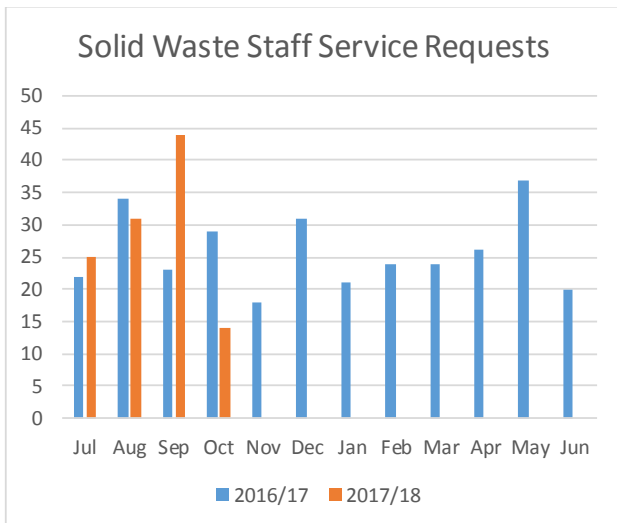


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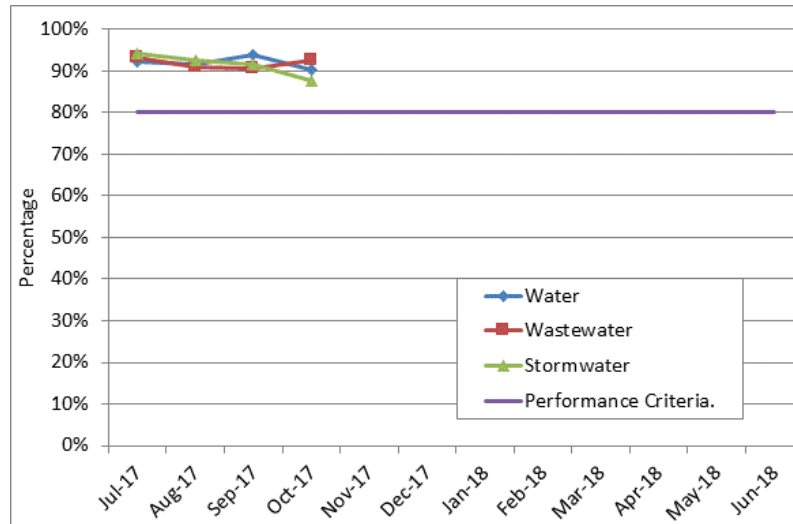


Solid Waste

7.4 Enquiries have increased in October with increased audits of recycling bins and as drivers have adjusted collection times to meet rising demand.



Contractor Performance



Water Supply

Activity Highlights

- 7.5 The water networks have generally performed well over the last period but there have been some pump failures as listed below.
- 7.6 Seismic strengthening of the Brightwater, Murchison and Wakefield reservoirs is now complete
- 7.7 A minor leak has been detected in one of the Richmond Upper reservoirs. The tank has been emptied and investigations to find and repair the leak are underway.
- 7.8 Testing of the new pipes in Fauchelle Avenue, Darcy, Florence and Elizabeth Streets is complete and they are now in service.
- 7.9 A bore pump on the Tapawera scheme has failed and a high lift pump on the Golden Hills scheme has failed.

Compliance issues

- 7.10 A recent review of water supply rates has identified that 17 properties on the Brightwater water supply scheme, which is in the Water Club, has historically been undercharged for water supply and this revenue has been paid to the Eighty Eight Valley water supply account. Section 41 of the Local Government (Rating) Act 2002 sets out the steps Councils must take to correct rates errors.
- 7.11 Total water supply rates collected in 2016-17 for these Eighty Eight Valley Rural Water Supply was \$13,811.99. If they'd been rated correctly for water, total water rates collected would have been \$37,562.18.
- 7.12 It appears that in the early 1980s it was discovered that it was not possible to service the areas at the Northern end of Mt Heslington Road from the Eighty Eight Valley water supply due to elevation of the pipe route and the limited capacity of the pipes. An isolation valve was installed in 1981 at the high point separating the 2 schemes. Consequently this area has been serviced from the Brightwater water supply but the users have been charged the Eighty Eight Valley water supply rates and the revenue has been paid into that account,

rather than into the account of the Water Club, which supplies the water. This is inconsistent with Council's rates Funding Impact Statement and needs to be rectified. This will impact on the charges to the users in the affected area and will reduce the revenue received for the Eighty Eight Valley water scheme. There will be no retrospective adjustments for rates previously charged.

- 7.13 Staff will be writing to the affected parties to advise them about this anomaly and the rating impact on their properties, which will take effect in July 2018.

Operations Update

- 7.14 Some works previously on hold due to the wet winter weather are now underway or will be soon, such as Silcocks Reservoir renewal.
- 7.15 The meter renewal project is nearing completion. During this project a number of valve on the mains were identified for replacement and renewed.
- 7.16 A pipeline burst occurred on the Dovedale main on Dovedale Road in mid-October.
- 7.17 On 2 November, a digger operating on private property at the end of Kihilla Road broke a 150mm diameter water supply main, in the process draining the reservoir and cutting water supply to a large part of the community. It appears the contractor did not apply for a services locate and will therefore be expected to cover the costs of the repair and the loss of water from the reservoir. The Utilities Manager will be meeting with the owner of the company to discuss their work practices as they were responsible for a similar break in Wakefield a couple of months back, for which they owe Council \$7,000.
- 7.18 Work has been completed on a pipe renewal on the Redwood scheme adjacent to the Moutere Highway and another is due to be carried out on Melling Road shortly.
- 7.19 The telemetry system has performed well. The upgrade work on the SCADA platform continues and the first phase changeover is anticipated in early November. Establishment of a new radio hub in the Motueka office is proving difficult with what is probably a minor problem eluding detection.

Wastewater

Activity Highlights

- Planning for the summer monitoring programme has been completed and instructions sent to the testing laboratories and Downer. The Odour Management Plan has been updated and instructions issued to Downer for dosing and other mitigation works.
- There haven't been any pump blockages at Aranui-Higgs pump station (Mapua) since the letter drop was completed.

Compliance issues

- 7.20 On 7 October the UV system dipped below the minimum dosage limit for 114 minutes and 22m³ of wastewater was discharged to Burton Ale Creek. The reduced dosage was the result of high inflow and rainfall of over 52mm causing resuspension of sludge in the upgraded wetlands. Burton Ale Creek was in flood at the time and the downstream Aorere River almost reached 600m³/s.
- 7.21 On 8 to 10 October 2017 the flow to the Upper Takaka Wastewater Treatment Plant exceeded the consent limit. Over 135mm of rain caused high flows in the reticulation

network. One property owner has repaired their lateral with two more to be instructed to do so. There is also a manhole in the Council reticulation that will be repaired.

- 7.22 On 14 October 2017 there was a blockage in the Council main on Motupipi Street in Takaka. Approximately 2m³ of wastewater overflowed into the adjacent Motupipi Stream. On 16 October 2017 a much smaller overflow occurred at the same location. The cause of the blockage was a build-up of wipes so a letter has been delivered to the nine properties upstream of the blockage advising them to put wipes in the rubbish and not the down the drain. Fonterra were also contacted and they confirmed they have bins and signage in their factory toilets for wipe disposal but will reinforce this message with staff. CCTV inspection of the pipeline will be undertaken.
- 7.23 On 21 October 2017, the Collingwood UV system again dipped below the minimum dosage limit, this time for 51 minutes. The cause of the high flows is unknown but a blockage is suspected. Ten m³ of wastewater was discharged at a peak flow rate of 0.003m³/s compared to the flow rate in the Aorere of 29m³/s. It is possible there was some impact on the quality of Burton Ale Creek immediately downstream of the discharge point.

Operations Update

- 7.24 We have been reviewing the first year's operation of the Motueka Wastewater Membrane Plant. There are still a few defects associated with the construction contract to close out which should assist with improving the plants throughput. However, we are also planning to increase the on-site chemical storage and handling facilities as the mix and quantities of chemicals needed to keep the membranes clean is different to what was anticipated at the time of design.
- 7.25 On Thursday evening 21 September 2017, Downer advised that the Motueka aeration basin was foaming. As the dissolved oxygen in the aeration basin was abnormally high, the foaming was an indicator of a high loading/toxic event that killed the bacteria in the pond. From the telemetry it appears the toxic event occurred on 20 September 2017. Samples collected did not indicate anything out of the ordinary, probably due to the length of time since the toxic event. It is likely the upgraded aeration basin limited the impact of the event on the rest of the WWTP and aided a quick recovery.



Foaming aeration basin, Motueka - 21 September 2017

Stormwater

Activity Highlights

- 7.26 Harry Rankin stormwater diversion works were completed at the end of October. The work will help to reduce the risk of flooding in Harry Rankin Street but more importantly prevents the reticulated stormwater discharging onto the property at 40 Staples Street.
- 7.27 A pre-storm check was carried out on 25 September 2017 but rainfall was minimal.
- 7.28 The Motueka tidal control gates operated in “Storm Mode” on the weekend of 7 and 8 October with spring tidal conditions. There were no issues as the rainfall was not heavy.

Operations Update

- 7.29 Complaints regarding surface water flows at 1 Cushendall Rise in Richmond are being investigated but it is considered that the wet ground has been caused by natural spring flows in the area, in particular along the fault line. The public stormwater, wastewater and water supply systems above and alongside this property have been checked for leaks. A minor leak was discovered in the reservoir above but any leaks from the reservoir are captured by the sub-surface drains and directed into the stormwater network.
- 7.30 As part of the water supply upgrade in Elizabeth Street in Richmond a damaged stormwater pipe and blockage was unearthed. A new manhole and road sump are required to make the repair and access the pipe to clear the sedimentation blockage.

Solid Waste

Activity Highlights

- 7.31 Recycling volumes and waste through Resource Recovery Centres are increasing with planning well underway for the busy summer season. We are continuing to work on minimising contamination in recycling.

Operations Update

- 7.32 Kerbside recycling volumes are ramping up as we approach summer. Annual volumes to the end of October 2017 were up 4% compared to October 2016. The contractor is continuing with proactive audits of recycling bins before collection to reduce contamination, which is now running at 5.5%. Keeping contamination low is essential to reduce waste costs and to maximise the value of recyclable product.
- 7.33 Our contractor is leaving stickers on contaminated bins to educate customers and these stickers have recently been updated to make them more informative. We are continuing to see relatively high numbers of plastic bags in recycling bins and we are now placing stickers on the bins and leaving them on the kerbside.
- 7.34 The new recycling container is operational in Murchison, with positive feedback from the community. We have completed two collections and are working to maximise the payload capacity and unloading process. Two more bins are due to be delivered before Christmas.



New recycling container in Murchison (left) and waste compactor in Mariri (right)

- 7.35 The new waste compactor at Mariri is now operational and working well but we are working with the contractor to make minor improvements. The waste collections contract is bedding in well with the contractor expecting additional vehicles in November.
- 7.36 There has been recent media coverage of a potential difficulty of selling some recyclable plastics into China in the near future. While the detail of the Chinese government's position is not yet clear, we understand it is most likely to affect our mixed plastic range (generally numbers 3-6). This product represents around 2% of our recycling product. Under the terms of our contract with Smart Environmental we share the benefits and risks of sale of recyclable product. At present we have not encountered any difficulties with this product but we will be monitoring the situation. In the meantime we will be ensuring that the product is as clean and uncontaminated as possible to minimise the risk of material being rejected.

8 Transportation

Urban Road Maintenance

- 8.1 Downer has undertaken repairs to various roads including Lower Queen Street which will be ongoing for several weeks.
- 8.2 Pavement testing of both Lower Queen Street and Salisbury Road have been initiated to get a better picture of the existing pavement strength.
- 8.3 The Toru Street Causeway in Mapua has also had repairs prior to resealing. This work is being paid for by the Lessee of the Leisure Park as required under their agreement with the Council.

Footpaths

- 8.4 The new footpath in Courtney Street will begin soon and will enable better pedestrian access to the Jack Inglis Hospital as well as providing patients with a paved circuit for exercising.
- 8.5 Lower Queen Street path widening outside the Medical Centre is due to be done shortly.
- 8.6 Footpath repairs were carried out in George Street, Churchill Avenue, Hill Street and Goodman Drive. The George Street path repairs will require remedial work due to a very invasive weed that has come through the new asphalt. Further repairs to various footpaths in Richmond and Motueka are planned over the next month. Also, concrete path joint grinding is planned to start shortly.

Kaiteriteri and Marahau

- 8.7 Repairs have been completed in Inlet Road ready for resealing.
- 8.8 Shortly, the section of Riwaka-Kaiteriteri Road between the bridge near Martin Farm Road and Inlet Road will be resurfaced prior to the hectic Christmas rush.
- 8.9 A proposal for improving the parking congestion in Moonraker Way for day trippers to Split Apple Rock will be trialed over summer.
- 8.10 New advance warning signs were installed in Marahau last month to advise tourists of the facilities and distance to the gateway into the Abel Tasman National Park. This signage was initially requested by the Department of Conservation and supported by the residents' association.
- 8.11 Stephens Bay Carpark had the Separation Granite Sand surface removed and a limestone basecourse wearing layer constructed to improve resilience and drainage. This project was funded between Transportation and Reserves and Facilities.

Road Marking

- 8.12 The repainting of road markings is progressing well in the Motueka Ward as well as installation of centrelines to various Secondary Collector Roads across the District. Additional Keep Left arrows are also due for marking on tourist routes in the Kaiteriteri area.
- 8.13 Roads that were resealed across the District last year are also being remarked.

Street lighting

- 8.14 Repairing of various outages involving fuses, daylight switches and occasional cable breaks which was the case recently in Antoine Grove in Richmond. Fortunately, Powertech found the fault at the base of the column which negated the need to dig up the cable back to the power box.
- 8.15 Electrical testing and non-destructive street light column testing is ongoing. Already there have been columns identified for replacement due to corroding around the column base. Electrical testing has also identified a number of installations that need remedial work to ensure they remain safe.
- 8.16 A solar light will be installed in the Brightwater Village carpark once delivery of a replacement component has arrived.
- 8.17 Both Aranui Road and Waimea West Roads are planned for infill lighting. This work is likely to start after Christmas.

Sundial Square

- 8.18 Through the road maintenance contract, Independent Kerb & Concrete have undertaken various repairs to paved areas including the tree pit areas which were sinking causing the seats to become uneven.
- 8.19 Council will be undertaking a high pressure water clean of the pavers and street furniture in the Square.
- 8.20 As the LED luminaires in Queen Street are replaced with new styled ones, the old ones are being installed in Sundial Square to replace the old shoe box styled metal halide luminaires.

- 8.21 New solenoids have been ordered for the fountains which hopefully will be installed before Christmas. The solenoids are electronic and control the water jets and display.
- 8.22 The brass information plaques around Sundial Square are to be renovated and protected as much of the etched surface is difficult to read.

Rural Road Maintenance

- 8.23 Shoulder improvements were undertaken to School Road, Riwaka near the School to increase and improve parking. Further work is planned which hopefully can be completed during the Christmas school holidays.
- 8.24 A 120 m² willow wall has been constructed to repair an under-slip on the Kaiteriteri-Sandy Bay Road. New kerb and channel has also been constructed across the front of the slip to intercept stormwater.
- 8.25 Pre-reseal work is underway, with a large quantity of dig-outs being completed on Korere-Tophouse Road and Motueka Valley Highway.
- 8.26 The contractor has started the culvert replacement programme, with new culverts installed in Pigeon Valley South Branch.
- 8.27 The first round of mowing and spraying has been completed in the rural areas.
- 8.28 The wet weather continues to bring down slips across the district, including Motueka River West Bank Road and Blackbird Valley Road.
- 8.29 The contractor has developed several quarries and is crushing maintenance aggregate. Aggregate has been applied in Pigeon Valley Road and Pig Valley Road.
- 8.30 A storm event on Tuesday 7 November 2017, combined with a large tide, resulted in large amounts of beach gravel and log debris deposited across Stafford Drive in Ruby Bay. The road was closed with detours around Pomona Road whilst the material was cleaned up.

Golden Bay Road Maintenance

- 8.31 October was a generally good month for maintenance work with a large amount of pre-reseal repairs completed. The wind event early in November caused a small amount of localised debris wash around Pohara and several downed trees but little other damage.
- 8.32 The upcoming programme of work includes:
- Pavement repairs on Collingwood-Puoponga Main Road, Reilly Street, Motupipi Street and Abel Tasman Drive.
 - Drainage and shoulder work on Cobb Dam Road, Grant Road, Waitui Road, McShane Road, Bates Road, Parapara Beach Road and Lookout Road.
 - Unsealed road metalling on Canaan Road.
 - Beginning 2018/19 sites pre-reseal repairs.

Murchison Road Maintenance

- 8.33 October was a productive month with all pre-reseal repairs for this year's sites completed. The wind event early in November caused several roads to be closed for around half a day due to fallen trees and other debris clean-up work for several days following.
- 8.34 The upcoming programme of work includes:

- Drainage maintenance and improvements on Maruia West Bank Road and Matakītaki Road.
- Unsealed pavement maintenance on Tutaki Road North.
- Beginning 2018/19 sites pre-reseal repairs.

Sealed Road Resurfacing

8.35 The contractor is working through the final stages of planning for this year's resealing work and will begin resealing in Richmond in December.

Olivers Road Intersection Upgrade

8.36 The Kohatu Motorsport Park Trust has confirmed that they will be able to complete the intersection upgrade with the approved \$300,000 contribution from the Council. The Trust will contribute the remaining value of work through fundraising and work in-kind completed by supporters of the Motorsport Park. A final design is expected to be delivered by the middle of December with work beginning in the New Year.

River Activity Update

Fully Maintained Rivers (X&Y)

- 8.37 The expenditure on the River Maintenance Contract 1064 up to the end of October 2017 is \$688,000 out of an available maintenance budget of \$1,500,000. This continues to be a good result by Taylors Contracting Limited and is still tracking ahead of the forecast monthly budget.
- 8.38 There are some repairs from the April 2017 flood in the Dove River that still need to be completed. Sections of work in this river have been delayed because of the trout spawning season and difficulties in obtaining access to work sites due to wet ground conditions.
- 8.39 The main flood damage repairs at the upstream end of the Wai-iti River have been undertaken and we are systematically working downstream carrying out routine maintenance repair works.
- 8.40 Willow pole planting has been undertaken on the Motupiko and Takaka Rivers. The wetter than usual conditions has resulted in good survival and growth rates of poles planted.
- 8.41 There was very little plant material available from the Council nursery and it is very overgrown with grass and requires improved general maintenance.
- 8.42 We are presently undertaking willow tree anchoring work in the Motupiko River to give a bit more channel diversity for fish habitat.
- 8.43 Native plant preparation sites have continued to be prepared for the 2018 planting year where it is programmed to plant 21,500 native plants.
- 8.44 We are still in negotiations with the New Zealand Transport Agency for the erosion repairs around the left bank abutment of the Waitapu Bridge.
- 8.45 The river bank and fairway maintenance spraying programme has commenced for the year with work started in the Wai-iti River.

River Z Area Works

8.46 The demand for River Z works remains high with the larger proposed work in the Matakītaki, Buller and Tutaki River catchments.

- 8.47 More of this was work delayed until after the trout spawning season which ended in September.
- 8.48 In the Tasman Bay area the smaller river and stream catchments have experienced the most flood damage this financial year.

Coastal Update

Marahau Rock Revetment

- 8.49 As previously reported, approximately 750m³ of sand was relocated in August 2017 from an off-shore sand deposit and relocated to the northern end of the existing rock revetment adjacent to Wakatu Incorporated land.
- 8.50 On 12 September 2017 Council staff met with a delegation from the Marahau Sandy Bay Residents and Ratepayers Association to discuss the ongoing erosion north of the existing rock revetment. Concern was expressed about the need to develop alternative solutions to protect the beach from further erosion.
- 8.51 Council staff are investigating alternative options with Wakatu Incorporation for the protection of the area of concern and we will keep the ratepayers association informed as this work progresses.

Ruby Bay

- 8.52 The sea wall adjacent to Tait Street through to Chaytor Reserve has been repaired with approximately 350 tonnes of rock.
- 8.53 A survey is planned to determine if there has been any changes in the beach profile. This is required annually as a condition of the resource consent.
- 8.54 The steps over the rock revetment at Tait Street and the Old Mill Walkway and been repaired again after storm damage. These access steps are very prone to ongoing damage usually caused by a washed up logs from a storm event smashing off the railings and steps.

Clued-Up Kids Programme

- 8.55 Nearly 700 children, 60 teachers and parents, 50 volunteers and 17 staff from different organisations participated in the Clued-Up Kids programme between 30 October and 3 November 2017.
- 8.56 The children worked their way around eight different 15-minute sessions. Each session had a safety theme – fire safety, dog safety, boat safety, cycle safety, home safety, first aid, civil defence and safety around trucks.
- 8.57 The event attracted significant media coverage.
- 8.58 Feedback was very positive and planning is already underway for 2018, where it is anticipated the programme will be held in Motueka.

Item 9.4



Clued-Up Kids Activities



MINUTES
of the
ENGINEERING SERVICES COMMITTEE MEETING
held
9.30 am, Thursday, 5 October 2017
at
Tasman Council Chamber, 189 Queen Street, Richmond

Present: Councillor S G Bryant (Chair), Councillors S R Brown, M J Greening, P H Hawkes, T B King, C M Maling, D E McNamara, D J Ogilvie, P F Sangster, T A Tuffnell, A C Turley and D M Wensley

In Attendance: Engineering Manager (R J Kirby), Activity Planning Manager (D L Fletcher), Programme Delivery Manager (R McGuigan), Transportation Manager (J McPherson), Utilities Manager (M Schruer) and Executive Assistant (R L Scherer)

Part Attendance: Asset Engineer – Waste Management and Minimisation (D Stephenson)

1 OPENING, WELCOME

2 APOLOGIES AND LEAVE OF ABSENCE

Moved Cr Wensley/Cr Maling
ESC17-10-1

That apologies from Mayor Richard Kempthorne and Cr P L Canton, and from Cr T B King for lateness, be accepted.

CARRIED

3 PUBLIC FORUM

Lew Solomon tabled a paper regarding water supply and the proposed Waimea Dam. He spoke about urban water demand and the apparent discrepancies in water leakage figures. Mr Solomon suggested that the price of land in Teapot Valley was lower than had been previously reported.

Murray Dawson spoke about water supply and the proposed Waimea Community Dam.

Phil Taylor spoke about the Queen Street upgrade project and noted his concerns about the severe financial impacts the work was having on Queen Street businesses. He said that the

changes to the work programme had also impacted the businesses. He suggested that the number of staff working on the project should be increased and that they work longer hours so that the project could be completed earlier. He asked that the Councillors ensure the work is completed without delay.

Craig Taylor also spoke about the financial impact of the Queen Street upgrade works on the local businesses.

Charlotte Bidlake spoke in support of the Taylors submission to the public forum and urged the Council to increase the work force and hours the contractors are working on the Queen Street upgrade project.

Ash Price spoke on behalf of the Kohatu Motorsport Park Trust regarding deferment of the upgrade to the Olivers Road intersection. He questioned the contingency amount in the proposed costs and the amount quoted for professional fees. Mr Price asked that the Council reconsider the recommendation in today's agenda to defer the Olivers Road intersection upgrade.

Aaron Adcock also spoke on behalf of the Kohatu Motorsport Park Trust. He spoke about the "in kind" work that the Trust has available to help establish the Motorsport Park. He noted that the Trust is unable to proceed with the proposed motorsport park until the issue of the upgraded intersection at Olivers Road is resolved. He urged the Council to help the Trust to realise their vision for the motorsport park.

The Chair invited Mr Kirby to introduce new staff member **Rob O'Grady** who has taken up a role as Project Manager in the Programme Delivery team.

4 DECLARATIONS OF INTEREST

Nil

5 LATE ITEMS

Nil

6 CONFIRMATION OF MINUTES

**Moved Cr McNamara/Cr Tuffnell
ESC17-10-2**

That the minutes of the Engineering Services Committee meeting held on Thursday, 17 August 2017, be confirmed as a true and correct record of the meeting.

CARRIED

7 REPORTS OF COMMITTEE

Nil

8 PRESENTATIONS

Nil

9 REPORTS

9.1 Chairman's Report

The Chairman asked that his report be taken as read.

In response to a question about the three-monthly State Highway Liaison meetings between the Council and the New Zealand Transport Agency, the Chairman noted that he and Council staff are meeting with New Zealand Transport Agency staff on 13 October 2017 to look at the options for future meetings.

It was agreed that the state highway liaison meetings are useful but that the agenda should include “meaningful” items, not operational issues.

In response to a question, Mr Kirby noted that staff are meeting with local property owners over the next two weeks regarding the programme of work to alleviate stormwater issues in Pohara.

In response to a question, Mr Kirby agreed that he would respond to the comments made by Mr Solomon in today's public forum.

**Moved Cr Brown/Cr Wensley
ESC17-10-3**

That the Engineering Services Committee receives the Chairman's Report RESC17-10-01.

CARRIED

9.2 Minor Improvements Programme - Amendment

Jamie McPherson spoke to the report contained in the agenda which was taken as read.

Mr McPherson spoke about the higher than anticipated costs for the Olivers Road intersection upgrade project and the Lower Queen Street/Swamp Road work. He noted that the NZTA funding subsidy for the minor improvements programme requires that any project must be completed by 30 June 2018.

Cr Hawkes asked that the Olivers Road intersection project be revisited. He spoke in support of the motorsport park and suggested that staff need to make the project work.

It was noted that the proposed Motorsport Park was a significant investment for the District and deferring the Olivers Road intersection upgrade could impede the future of the venture.

Mr Kirby spoke about how projects are estimated prior to detailed design and the associated contingency fees relating to this work. He suggested that staff could work with the Motorsport Park Trust with a view to reducing the costs for the proposed Olivers Road intersection upgrade.

Mr McPherson noted that the offer of “in kind” assistance from the Kohatu Motorsport Park Trust warrants further discussion. However, he also noted that if the Olivers Road Intersection Upgrade is reinstated in the current programme, other projects would have to be delayed this financial year.

Cr Hawkes proposed an additional motion to the resolution asking that staff enter into negotiations with the Kohatu Motorsport Park Trust to review the priority of the Olivers Road

intersection upgrade and then report back to the Engineering Services Committee.

Cr Maling asked that any future reports regarding the Minor Improvements Programme includes commentary around projects that are focused on addressing safety concerns.

In response to a question about the deferment of the William Street/Hill Street pedestrian refuge, Mr McPherson said that deferring the project gives staff more time to look at the best option for pedestrian safety at this location.

The Chairman invited Motueka Community Board member Barry Dowler to speak. Mr Dowler spoke about the costs of pedestrian refuges and noted that NZTAs costs for pedestrian refuges were considerably lower than had been quoted in the minor improvements report. He suggested that staff need to ask contractors to “think outside the box” in helping to make these projects more cost-effective.

Mr McPherson said that any pedestrian refuge work is not just about provision of a refuge but also often includes new footpaths, new drainage and other works.

**Moved Cr Hawkes/Cr Brown
ESC17-10-4**

That the Engineering Services Committee

- 1. receives the Minor Improvements Programme - Amendment report, RESC17-10-02; and**
- 2. approves the updated Minor Improvements Programme shown in Table 1 of Section 4 of this report, RESC17-10-02 with a total budget of \$1.29 million for the 2017/18 financial year; and**
- 3. that the Council enters into negotiations with the Kohatu Motorsport Park Trust to review the priority of the Olivers Road intersection upgrade and that staff report back to the Engineering Services Committee.**

CARRIED

9.3 Joint Waste Assessment - Tasman District and Nelson City Councils

Mr Stephenson spoke to the report contained in the agenda which was taken as read.

It was noted that Nelson City Council will consider a similar report at their November meeting. Mr Kirby spoke about the tight timeframes and suggested that once Nelson City Council appoints its members that the working party will need to get on with the job as soon as possible.

Cr Tuffnell nominated Cr Bryant and Cr Maling to be appointed to the Joint Waste Assessment Working Group.

It was noted that three Councillors had been appointed to the Joint Waste Working Party during the 2013-2016 trimester. In response, the Councillors agreed that Tasman District Council should co-opt a third member of the working group.

Cr McNamara volunteered to join the Working Party as the third Tasman District Council representative. The resolution was amended to reflect the appointment of three members of the

Joint Waste Working Party.

Cr King arrived at 11.43 am

It was agreed that staff will advise Nelson City Council of the Engineering Services Committee's decision to appoint three members to the Joint Waste Working Party.

**Moved Cr Tuffnell/Cr Sangster
ESC17-10-5**

That the Engineering Services Committee:

- 1. receives the Joint Waste Assessment - Tasman District and Nelson City Councils report, RESC17-10-03; and**
- 2. approves the Nelson-Tasman Joint Waste Assessment 2017, dated 26 September 2017 as an assessment under section 51 of the Waste Minimisation Act 2008; and**
- 3. approves the formation of a Nelson City Council and Tasman District Council Joint Waste Working Party to advise both councils on the review of the Nelson City Council-Tasman District Council Joint Waste Management and Minimisation Plan 2012 (subject to a reciprocal agreement by Nelson City Council); and**
- 4. approves the Terms of Reference for the Joint Waste Working Party attached to this report; and**
- 5. appoints Councillors Bryant, Maling and McNamara as members of the Joint Waste Working Party; and**
- 6. directs that the Joint Waste Working Party report back to the Engineering Services Committee to ensure that the Joint Waste Management and Minimisation Plan can be adopted by April 2018.**

CARRIED

The meeting adjourned for morning tea at 10.45 am.

The meeting resumed at 11.10 am.

Cr Tuffnell left the meeting at 11.10 am.

9.4 Capital Projects Programme

Mr Kirby spoke to the report contained in the agenda which was taken as read.

He noted the challenges in delivering the capex programme where projects often relied on a number of variables including land purchase, detailed design and project planning.

Mr Kirby advised that he will provide a regular report on progress with the capital projects programme to the Engineering Services Committee meeting.

**Moved Cr Ogilvie/Cr Maling
ESC17-10-6**

That the Engineering Services Committee receives the Capital Projects Programme report, RESC17-10-04.

CARRIED

9.5 Engineering Services - Activity Update

Mr Kirby spoke to the report contained in the agenda which was taken as read.

He noted the large number of service requests that the Engineering Services Department receives each year (between 3000-4000). He said that a significant number of these requests concern roading issues which can take some time to resolve. He noted that staff keep in touch with residents and ratepayers to ensure they know what is happening with their specific service request. Mr Kirby said he would provide an update on customer service requests to the November Engineering Services Committee meeting.

Dwayne Fletcher spoke to the Activity Planning section of the report that was taken as read. Mr Fletcher spoke about the revised timeline for completing the Joint Land Development Manual.

In response to a question, Mr Fletcher noted that some outstanding issues regarding the stormwater chapter of the Joint Land Development Manual should be resolved between the two councils at the next Steering Group meeting in November.

Russell McGuigan spoke to the Programme Delivery section of the report contained in the agenda which was taken as read.

In response to earlier comments, Mr McGuigan advised that the contractor, Downer had already employed extra staff on the Queen Street upgrade project. However, he noted that there is a limit to the number of staff that can work on the site at any one time without compromising safety.

Mr Kirby noted that there had been a number of suggestions on ways to get the Queen Street upgrade project completed earlier. These had included the provision of significant extra resources, ie bombarding the work and getting it done more quickly. However, he noted that this type of solution would have cost implications and may compromise quality. Mr Kirby said that he would provide a further update on the Queen Street upgrade project to the November Engineering Services Committee.

Mr Kirby noted that the contractor Downer has been asked to ensure the hoardings along Queen Street are not placed directly against the footpath when the construction zone can be reduced.

Mike Schruer spoke to the Utilities section of the report contained in the agenda which was taken as read.

Mr Schruer spoke about the regular site safety audits staff are undertaking.

He noted that the Utilities O&M contract is now out to tender and closes on 25 October 2017.

Mr Schruer spoke about the requirements of Water Safety Plans and noted that staff are

working closely with the local Drinking Water Assessor on the Council's Water Safety Plans.

Mr Schruer noted that staff had recently met with the Wai-iti Dam committee to review the work programme including work on the wave band and the outlet which needs to be isolated when required for inspection.

Mr Schruer spoke about the proposed treatment upgrades for the Eighty-Eight Valley and Dovedale water supplies.

Mr Schruer spoke about the continuing issue of clothing entering the wastewater network and blocking wastewater systems.

He noted that soft plastics contamination in recycling bins had increased since the recent announcement of recycling soft plastics at supermarket outlets. He said that staff are concentrating on a media campaign to counteract the contamination issue.

It was agreed that the Engineering Services health and safety (H&S) report should complement the Council-wide H&S summary report that is presented as part of the Chief Executive's activity update to Full Council.

In response to a question regarding the stormwater issues in Collingwood, Mr Schruer noted that there is still some significant work to be done in finding a solution before staff can report back to the Golden Bay Community Board and the affected landowners.

In response to a question about daily water loss, Mr Schruer said a report on this issue would be presented to the November Engineering Services Committee meeting.

Jamie McPherson spoke to the Transportation section of the report contained in the agenda which was taken as read.

In response to a question about street lighting, Mr McPherson said that he would follow up on the issue regarding the street light that has been removed in Staples Street, Motueka and report back to Councillor Hawkes.

It was noted that the LED bulbs now being used in the District's streetlighting result in a more direct lighting effect causing an issue of light and dark in some areas. It was suggested that staff could look into a different type of LED bulb for streets where the light poles are spread out. Mr McPherson will investigate and provide feedback to the next Committee meeting.

In response to a question regarding the new road maintenance contract, Mr McPherson said that staff were reasonably pleased with the contractor's performance to date.

Cr Tuffnell returned to the meeting at 12 noon.

Cr Hawkes noted that the slump at the Pah Street intersection in Motueka is now even deeper. Mr McPherson said he would provide a response about remedial action at this site to Councillor Hawkes.

In response to a question about the safety of school pupils around the school cluster in Salisbury Road, Mr McPherson noted that staff are still collecting data on traffic speeds in the area and no course of action has been set as yet.

In response to a question, Mr McPherson said he would report back to the Golden Bay Ward Councillors regarding work to fix the slip on Pupu Springs Road.

In response to a question, Mr McPherson said he would report back to Cr Turley regarding the erosion that is affecting the two rivers walkway.

Moved Cr Maling/Cr Turley

ESC17-10-7

That the Engineering Services Committee:

- 1. receives the Engineering Services - Activity Update report, RESC17-10-05; and**
- 2. notes the Engineering Services action sheet update.**

CARRIED

10 CONFIDENTIAL SESSION

The meeting concluded at 12.10 pm

Date Confirmed:

Chair: