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**PALMERSTON NORTH CITY COUNCIL**

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**AGENDA**  
**INFRASTRUCTURE COMMITTEE**

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**9AM, WEDNESDAY 3 JUNE 2020**  
ELWOOD ROOM, CONFERENCE & FUNCTION CENTRE  
354 MAIN STREET, PALMERSTON NORTH

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## MEMBERSHIP

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**Vaughan Dennison (Chairperson)**

**Susan Baty (Deputy Chairperson)**

**Grant Smith (The Mayor)**

**Brent Barrett**

**Rachel Bowen**

**Zulfiqar Butt**

**Lew Findlay QSM**

**Billy Meehan**

**Karen Naylor**

**Bruno Petrenas**

**Aleisha Rutherford**

**Tangi Utikere**

**Agenda items, if not attached, can be viewed at:**

[pncc.govt.nz](http://pncc.govt.nz) | Civic Administration Building, 32 The Square

City Library | Ashhurst Community Library | Linton Library

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**Heather Shotter**

**Chief Executive, Palmerston North City Council**

**Palmerston North City Council**

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Private Bag 11034, 32 The Square, Palmerston North



## **INFRASTRUCTURE COMMITTEE MEETING**

3 June 2020

### **ORDER OF BUSINESS**

#### **NOTES:**

- The Infrastructure Committee meeting coincides with the ordinary meeting of the Economic Development Committee. The Committees will conduct business in the following order:
  - Infrastructure Committee
  - Economic Development Committee
- Due to the changing situation in relation to COVID-19, this meeting will also be held via audio visual links. A recording of the meeting will be made available on our website shortly after the meeting has finished.

If you wish to attend this meeting via audio visual link then please contact the Democracy & Governance Administrator, Carly Chang, on [carly.chang@pncc.govt.nz](mailto:carly.chang@pncc.govt.nz) to request a link.

#### **1. Apologies**

#### **2. Notification of Additional Items**

Pursuant to Sections 46A(7) and 46A(7A) of the Local Government Official Information and Meetings Act 1987, to receive the Chairperson's explanation that specified item(s), which do not appear on the Agenda of this meeting and/or the meeting to be held with the public excluded, will be discussed.

Any additions in accordance with Section 46A(7) must be approved by resolution with an explanation as to why they cannot be delayed until a future meeting.

Any additions in accordance with Section 46A(7A) may be received or referred to a subsequent meeting for further discussion. No resolution, decision or recommendation can be made in respect of a minor item.

**3. Declarations of Interest (if any)**

Members are reminded of their duty to give a general notice of any interest of items to be considered on this agenda and the need to declare these interests.

**4. Public Comment**

To receive comments from members of the public on matters specified on this Agenda or, if time permits, on other Committee matters.

(NOTE: If the Committee wishes to consider or discuss any issue raised that is not specified on the Agenda, other than to receive the comment made or refer it to the Chief Executive, then a resolution will need to be made in accordance with clause 2 above.)

**5. Presentation - NZTA**

Page 7

**6. Confirmation of Minutes**

Page 9

“That the minutes of the Infrastructure Committee meeting of 4 March 2020 Part I Public be confirmed as a true and correct record.”

**7. Papaioea Place Redevelopment 6-Monthly Update**

Page 13

Memorandum, presented by Bryce Hosking, Manager - Property.

**8. Arena Redevelopment 6-Monthly Update**

Page 19

Memorandum, presented by Bryce Hosking, Manager - Property.

**9. Six Month Transport Network Safety Update Report - 2019-1**

Page 35

Memorandum, presented by Robert van Bentum, Manager - Transport and Infrastructure.

**10. Update Memorandum: 3 Waters Asset Condition**

Page 49

Memorandum, presented by Jono Ferguson-Pye, Assets and Planning Manager.

**11. Committee Work Schedule**

Page 59

**12. Exclusion of Public**

To be moved:

“That the public be excluded from the following parts of the proceedings of this meeting listed in the table below.

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under Section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

General subject of each matter to be considered		Reason for passing this resolution in relation to each matter	Ground(s) under Section 48(1) for passing this resolution
13.	Streets for People Programme - Procurement of Design Services	Commercial Activities	s7(2)(h)

This resolution is made in reliance on Section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public as stated in the above table.



## **PRESENTATION**

**TO:** Infrastructure Committee

**MEETING DATE:** 3 June 2020

**TITLE:** Presentation - NZTA

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### **RECOMMENDATION(S) TO INFRASTRUCTURE COMMITTEE**

- 1. That the Infrastructure Committee receive the presentation for information.**
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### **SUMMARY**

Mr Lonnie Dalzell, Owner Interface Manager and Mr Mark Long, Te Ahu a Turanga Alliance - People and Culture Manager from NZTA will make a presentation regarding the new Gorge Highway.

### **ATTACHMENTS**

Nil



# PALMERSTON NORTH CITY COUNCIL

## Minutes of the Infrastructure Committee Meeting Part I Public, held in the Council Chamber, First Floor, Civic Administration Building, 32 The Square, Palmerston North on 04 March 2020, commencing at 9.04am

- Members Present:** Councillor Vaughan Dennison (in the Chair), The Mayor (Grant Smith) and Councillors Brent Barrett, Susan Baty, Rachel Bowen, Zulfiqar Butt, Lew Findlay QSM, Billy Meehan, Karen Naylor, Bruno Petrenas, Aleisha Rutherford and Tangi Utikere.
- Non Members:** Councillors Renee Dingwall, Patrick Handcock ONZM, Leonie Hapeta and Lorna Johnson.
- Apologies:** The Mayor (Grant Smith) (early departure on Council business) and Councillors Lew Findlay (early departure) and Billy Meehan.

The Mayor (Grant Smith) was not present when the meeting resumed at 3.35pm. He was not present for clauses 2 to 4 inclusive.

Councillor Lew Findlay was not present when the meeting resumed at 3.35pm. He entered the meeting again at 3.41pm during consideration of clause 3. He was not present for clause 2.

Councillor Leonie Hapeta left the meeting at 3.36pm during consideration of clause 2. She entered the meeting again at 3.38pm during consideration of clause 3. She was not present for clause 2.

### 1-20 Apologies

Moved Vaughan Dennison, seconded Rachel Bowen.

#### The COMMITTEE RESOLVED

1. That the Committee receive the apologies.

Clause 1-20 above was carried 15 votes to 0, the voting being as follows:

#### For:

The Mayor (Grant Smith) and Councillors Brent Barrett, Susan Baty, Rachel Bowen, Zulfiqar Butt, Vaughan Dennison, Renee Dingwall, Lew Findlay QSM, Patrick Handcock ONZM, Leonie Hapeta, Lorna Johnson, Karen Naylor, Bruno Petrenas, Aleisha Rutherford and Tangi Utikere.

The meeting adjourned at 9.05am.

The meeting resumed at 3.35pm.

The Mayor (Grant Smith) and Councillor Lew Findlay were not present when the meeting resumed.

### 2-20 Confirmation of Minutes

Councillor Leonie Hapeta left the meeting at 3.36pm.

Moved Vaughan Dennison, seconded Susan Baty.

The **COMMITTEE RESOLVED**

1. That the minutes of the Infrastructure Committee meeting of 11 December 2019 Part I Public be confirmed as a true and correct record.

Clause 2-20 above was carried 12 votes to 0, the voting being as follows:

**For:**

Councillors Brent Barrett, Susan Baty, Rachel Bowen, Zulfiqar Butt, Vaughan Dennison, Renee Dingwall, Patrick Handcock ONZM, Lorna Johnson, Karen Naylor, Bruno Petrenas, Aleisha Rutherford and Tangi Utikere.

**3-20**

**Infrastructure Capital Works Dashboard - January 2020**

Memorandum, presented by Geoffrey Snedden, Acting Manager Project Management Office.

Councillor Leonie Hapeta entered the meeting again at 3.38pm.

Councillor Lew Findlay entered the meeting again at 3.41pm.

Moved Vaughan Dennison, seconded Susan Baty.

The **COMMITTEE RESOLVED**

1. That the January 2020 Infrastructure Capital Works Dashboard be received.
2. That the Committee agrees to receive the Infrastructure Capital Works Dashboard bi-monthly.

Clause 3-20 above was carried 14 votes to 0, the voting being as follows:

**For:**

Councillors Brent Barrett, Susan Baty, Rachel Bowen, Zulfiqar Butt, Vaughan Dennison, Renee Dingwall, Lew Findlay QSM, Patrick Handcock ONZM, Leonie Hapeta, Lorna Johnson, Karen Naylor, Bruno Petrenas, Aleisha Rutherford and Tangi Utikere.

**4-20**

**Committee Work Schedule**

In discussion it was requested that the Committee be updated on any future infrastructural projects that will be reported to the Committee.

Moved Tangi Utikere, seconded Vaughan Dennison.

The **COMMITTEE RESOLVED**

1. That the Infrastructure Committee receive its Work Schedule dated March 2020.
2. That a Schedule of 'Forward Works to be Undertaken' be placed on the Committee's Work Schedule (this 'Forward Works Schedule' will allow the Infrastructure Committee to monitor progress of key infrastructural

projects to be undertaken in the future).

Clause 4-20 above was carried 14 votes to 0, the voting being as follows:

**For:**

Councillors Brent Barrett, Susan Baty, Rachel Bowen, Zulfiqar Butt, Vaughan Dennison, Renee Dingwall, Lew Findlay QSM, Patrick Handcock ONZM, Leonie Hapeta, Lorna Johnson, Karen Naylor, Bruno Petrenas, Aleisha Rutherford and Tangi Utikere.

The meeting finished at 3.55pm

Confirmed 3 June 2020

**Chairperson**



## MEMORANDUM

**TO:** Infrastructure Committee

**MEETING DATE:** 3 June 2020

**TITLE:** Papaioea Place Redevelopment 6-Monthly Update

**PRESENTED BY:** Bryce Hosking, Manager - Property

**APPROVED BY:** Tom Williams, Chief Infrastructure Officer

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### RECOMMENDATION(S) TO INFRASTRUCTURE COMMITTEE

1. That the memorandum titled `Papaioea Place Redevelopment 6-Monthly Update' presented to the Infrastructure Committee on 3 June 2020 be received for information.
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#### 1. ISSUE

- 1.1 Stage 2 of the Papaioea Place Housing Redevelopment is funded through Programme 1219 – Social Housing – Papaioea Stage 2.
- 1.2 The Finance and Performance Committee Chairperson requested a quarterly update to be brought back to the Finance and Performance meeting for the duration of the construction period.
- 1.3 The terms of reference for the new Infrastructure Committee Meeting include scope for updates on the progress of the Papaioea Place Redevelopment. As such, this report is being presented to this Committee, and all future update reports for this programme will now be presented to the Infrastructure Committee as opposed to the Finance and Performance (now Finance and Audit) Committee.
- 1.4 In the December 2019 Infrastructure Committee Meeting it was agreed that the quarterly updates would change to 6-monthly updates moving forward.

#### 2. BACKGROUND

- 2.1 The Papaioea Place project form of contract is a design and build contract between Palmerston North City Council (Principal) and Latitude Homes (Contractor) of New Plymouth.

- 2.2 Papaioea Place Stage 1 was delivered through Programme 357. This saw the demolition of the 32 existing units and the construction of 50 new units in their place. Stage 1 was completed as planned on 28 February 2020 and within budget.
- 2.3 Papaioea Place Stage 2 sees the demolition of the remaining blocks of units on site and the old hall and the construction of an additional 28 new units. Once complete this will take the total number of new units on the site to 78.
- 2.4 The overall project management for both stages of the development is being provided by WT Partnership Advisory. The day-to-day project management is being carried out by Council Officers.
- 2.5 Site meetings and Project Control Group meetings are held on the last Thursday of each month. This report is a summary from the virtual meeting on 4 May 2020.

### 3. SUMMARY – PROJECT CONTROL GROUP REPORT FOR STAGE 2 – #01: 4 MAY 2020

#### Health and Safety

- 3.1 Latitude has provided an updated Site-Specific Safety Plan (SSSP) and COVID-19 Health and Safety Protocols for New Zealand Residential Construction Sites following lowering of the Alert Level to Alert Level 3.
- 3.2 Latitude has confirmed protocols are in place and required protocols, when entering and on site, have been issued to their subcontractors.
- 3.3 In addition to the above, given the activities in May are focusing on completing demolition of last unit block and Hall, the number of subcontractors on site will be limited.
- 3.4 Aside from this, there have been no incidents reported to date.

#### Key Programme Dates

- 3.5 Stage 2 will be delivered in two portions:
- Portion 5A & 5B – due for completion 23 April 2021
  - Portion 6 – due for completion 10 August 2021

#### Programme Update

- 3.6 On 23 March 2020 the New Zealand Government moved to Alert Level 3, and to Alert Level 4 midnight Wednesday, 25 March 2020 in response to the global COVID-19 pandemic.
- 3.7 Site access is now allowed following the Alert Level dropping back to Level 3 on 28 April 2020.

- 3.8 Asbestos removal commenced November 2019. Asbestos Clearance Certificates have been received on 12 November 2019 & 27 February 2020 for the blocks to be demolished.
- 3.9 Demolition of the old Unit Blocks 1 to 4 is completed (Portion 5A & 5B). The last block and Hall (Portion 6) were to commence 23 March but was stopped due to the Alert Level 4 announcement.
- 3.10 Final demolition has now commenced with completion on Friday 22 May 2020, one week ahead of programme.
- 3.11 With the construction protocols within Alert Level 3, Latitude will review their programme activities over the next month and confirm any potential delays. This will be reviewed again when we move into Level 2 once we have an indication of what restrictions will be in place during this Alert Level.
- 3.12 Once demolition is completed, a new partial boundary fence will be erected at Council's cost where the old hall was.

#### Design

- 3.13 Design updates have been included within the current building consents following the processing and approval of the Resource Consent. These include:
- Alteration to end Units of 5A & 5B and 6;
  - Portion 5A moved to create larger Heretaunga Street frontage and Portion 5B to increase central rear courtyards;
  - Proposed landscaping increased;
  - Fencing to Heretaunga Street frontage; and
  - Deletion of rain gardens to street frontage and increase to rear Cirtx Rainsmart system.

#### Regulatory

- 3.14 Resource Consent for Portions 5A, 5B and Portion 6 was approved on 17 April 2020.
- 3.15 Building Consents have been lodged and are continuing to be processed by Council.

#### Financial

- 3.16 There is an Approved Programme Budget for Stage 2 of \$5,205,680.
- 3.17 There has been a small budget variation of \$56,197 relating to additional design fee variation for design amendments and additional information required during the Resource Consent submission and processing.

3.18 Variation schedule to date:

Description	Amount (\$)
Design Fees for Resource Consent Amendments	\$56,197
<b>Total</b>	<b>\$56,197</b>

3.19 This variation has been accommodated within the project contingency.

3.20 An overview of the Project Budget Status is in the table below:

Description	Project Budget	Budget Variance	Final Forecast
Construction	\$4,317,017	\$56,197	\$4,373,214
Council Procured Items	\$109,000		\$109,000
Professional Fees	\$192,675		\$192,675
Authorities Fees	\$88,860		\$88,860
Contingency	\$498,308	(\$56,197)	\$442,111
<b>Total</b>	<b>\$5,205,680</b>	<b>\$0</b>	<b>\$5,205,680</b>

3.21 The Council Procured Items include:

- Curtains
- Landscaping Planting
- Chorus Connections
- Supply/ Install Heating

3.22 For clarity, in Stage 1 these were all treated as variations to the construction contract. For Stage 2 we have been able to plan these as part of the Programme.

#### 4. NEXT STEPS

4.1 Continue the construction programme to complete Stage 2 as per the budget and timeline.

4.2 Council to decide regarding their preferred option for a potential Stage 3 addressing the 'green space' within the complex. Any additional funding of the preferred option would need to be formally approved as part of the 2021-31 Long-term Plan.

#### 5. COMPLIANCE AND ADMINISTRATION

Does the Committee have delegated authority to decide?	<b>Yes</b>
Are the decisions significant?	<b>No</b>
If they are significant do they affect land or a body of water?	<b>No</b>
Can this decision only be made through a 10 Year Plan?	<b>No</b>

Does this decision require consultation through the Special Consultative procedure?	<b>No</b>
Is there funding in the current Annual Plan for these actions?	<b>Yes</b>
Are the recommendations inconsistent with any of Council’s policies or plans?	<b>No</b>
The recommendations contribute to Goal 3: A Connected and Safe Community	
The recommendations contribute to the outcomes of the Connected Community Strategy	
The recommendations contribute to the achievement of action/actions in the Social Housing Plan	
The action is: Upgrade the Papaioea housing complex (by end of 2018/2019).	
Contribution to strategic direction and to social, economic, environmental and cultural well-being	<ul style="list-style-type: none"> <li>• Upgrade the Papaioea housing complex (by end of 2018/2019)</li> <li>• Build new Council housing (by end of 2020/2021)</li> </ul>

**ATTACHMENTS**

Nil



## MEMORANDUM

**TO:** Infrastructure Committee

**MEETING DATE:** 3 June 2020

**TITLE:** Arena Redevelopment 6-Monthly Update

**PRESENTED BY:** Bryce Hosking, Manager - Property

**APPROVED BY:** Tom Williams, Chief Infrastructure Officer

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### RECOMMENDATION(S) TO INFRASTRUCTURE COMMITTEE

1. That the memorandum titled `Arena Redevelopment 6-Monthly Update' presented to the Infrastructure Committee on 3 June 2020 be received for information.
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### 1. ISSUE

- 1.1 As part of the redevelopment of the CET Arena there are three projects which have physical works commencing in the current 2019/20 financial year – The Speedway Pits Relocation, the new Entrance Plaza, and the Embankment Redevelopment.
- 1.2 To ensure best outcomes; these projects are being delivered concurrently as one project through a single main contractor.
- 1.3 The Arena Redevelopment is funded through the following Programmes:
  - 1082 – Central Energy Trust Arena Manawatu – Speedway Relocation & Artificial Pitch;
  - 1083 – Central Energy Trust Arena Manawatu – Entrance Plaza; and
  - 1534 – Central Energy Trust Arena Manawatu – Embankment Redevelopment
- 1.4 In the December 2019 Infrastructure Committee Meeting it was agreed that 6-monthly updates were to be provided to the Committee throughout the construction period of the combined project. This is the first of these update reports.

### 2. BACKGROUND

- 2.1 The scope of the project is broadly outlined as:
  - Speedway Pits – is a 17,000m<sup>2</sup> civil project. Involving the demolition of the existing fields, installation of limited underground services, roading,

hardstands, fencing, footpaths and associated hard landscaping and soft landscaping. Relocation of existing Palm Trees is a specialist phase of work.

- Entrance Plaza – is a 900m<sup>2</sup> public plaza with an 8m wide pedestrian bridge spanning from the Public Plaza to the Stadiums south embankment. Involving the erection of new retaining and bridge structures to specialist designs with hard landscaping, lighting, furniture and planting.
- South Embankment – is the demolition/ replacement of a 1000m<sup>2</sup> section of the concourse. The construction of foundations for embankment and retaining/ support to the future South Grandstand. It will involve the erection of amenity spaces to service the south section of the Grandstand, the pits zones, western embankment and northern grandstand, as well as the completion of a hardstand for a temporary seating concourse. This will also include the construction of a link bridge between the embankment and the existing grandstand for use of the public during events.
- There is also a ticket office in the Cuba Street side of the Entrance Plaza and a canopy on the embankment side of the bridge.

2.2 The works detailed in Clause 2.1 above will be delivered in two stages:

- Stage 1 – The Speedway Pits relocation and supporting infrastructure will be delivered by October 2020. Subject to there being no further COVID-19 interruptions.
- Stage 2 – The Entrance Plaza, South Embankment, the pedestrian entrance bridge and ticket booth will be delivered by April 2020.

2.3 The construction work is being delivered by PAK Holdings Limited t/a Humphries Construction as head contractor.

2.4 The report titled '*Award of Tender – CET Arena Redevelopment*' presented to and approved by Council on 25 March 2020. This report was reported in Part 2 and remains Confidential under s7(2)(h) Commercial Activities of the Local Government Official Information and Meetings Act 1987 for the duration of the project.

2.5 Immediately after the resolution to award the contract was received a Letter of Award was issued to the contractor so to allow subcontractors and materials to be secured.

2.6 Humphries Construction is based in Palmerston North and approximately 90 per cent of the subcontractors are also based within the Manawatu. The remaining 10 per cent is due to those products or services not being available locally.

2.7 The project management of the development is being provided by WT Project Management Advisory along with Council Officers.

- 2.8 Site meetings with the contractors, Project Control Group and Project Steering Group meetings are held each month and will continue throughout the duration of the programme.

### 3. PROGRESS SUMMARY

#### Health and Safety

- 3.1 Humphries Construction have provided an updated Site-Specific Safety Plan (SSSP) and COVID-19 Health and Safety Protocols for the construction site following lowering of the Alert Level to Alert Level 3.
- 3.2 Humphries Construction have confirmed these protocols are in place, these have been issued to subcontractors when entering and on site.

#### Key Programme Dates

- 3.3 Humphries Construction took possession of the site on Tuesday, 5 May 2020.
- 3.4 The blessing and 'breaking earth' ceremony took place on Friday, 8 May 2020.
- 3.5 Stage 1 is scheduled to be completed in October 2020.
- 3.6 Stage 2 is scheduled to be completed in April 2021.

#### Programme Update

- 3.7 During the first 10 days Humphries Construction have undertaken the following:
- Erected site fencing;
  - Coordinated the install of the hoarding graphics to corner of Cuba and Waldegrave Streets. Please refer to the attachment titled 'Arena Fence Hoarding Wrap';
  - Site set-up;
  - Demolition of council-owned residential property at 84 Waldegrave Street;
  - Established site power; and
  - Undertaken the site survey, datums and site set-out.
- 3.8 Long lead items such as steel, pre-cast concrete, stone have been secured with suppliers.

#### Design

- 3.9 Whilst detailed design is complete, there is still a focus on the Culture and Heritage overlay elements this includes influences from the likes of Rangitane, Maori

Battalion, A&P and Heritage groups together with customer journey maps and Strategy linkages in Urban design context against the City Centre Framework.

- 3.10 This work continued throughout the COVID-19 Level 3 and 4 restrictions.
- 3.11 The cultural and heritage design proposal was then presented to the Project Steering Group in April 2020 and was endorsed.
- 3.12 This proposal is currently being priced. For clarity, \$250,000 has been allowed within the total project budget for these items.

#### Regulatory

- 3.13 Resource Consent for the project has been received.
- 3.14 Building consent received.
- 3.15 The Resource Consent from Horizons to complete earthworks was submitted in December and is still pending at the time of writing this report.
- 3.16 The amendment due to value engineering for the toilet block within the embankment was lodged on 20 April 2020.

#### Financial

- 3.17 Below is a summary of the Programme Budgets for The Speedway Pits Relocation, the new Entrance Plaza, and the Embankment Redevelopment:

Programme	(\$000's)	(\$000's)	(\$000's)	(\$000's)
	2018/19	2019/20	2020/21	Total
1082 – Speedway Relocation	\$157	\$2,876	\$4,040	<b>\$7,074</b>
1083 – Entrance Plaza	\$113	\$2,263	\$2,341	<b>\$4,717</b>
1534 – Embankment Redevelopment	\$235	\$1,694	\$2,481	<b>\$4,410</b>
<b>TOTAL</b>	<b>\$505</b>	<b>\$6,833</b>	<b>\$8,862</b>	<b>\$16,200</b>
1082 – Additional External Funding Achieved and Savings from Artificial Pitch		\$295		<b>\$295</b>
Additional Funding Transferred from Programme 1514 – Commercial Building		\$619		<b>\$619</b>
<b>TOTAL AVAILABLE BUDGET</b>		<b>\$7,128</b>		<b>\$17,114</b>

3.18 Please Note: The above budgets were confirmed and approved by Council in the report titled ‘Award of Tender – CET Arena Redevelopment’ presented to Council on 25 March 2020. This report was reported in Part 2 and remains Confidential under s7(2)(h) Commercial Activities of the Local Government Official Information and Meetings Act 1987 for the duration of the project.

**4. NEXT STEPS**

4.1 Continue the construction programme to complete the Arena Redevelopment Programme as per the budget and timeline.

**5. COMPLIANCE AND ADMINISTRATION**

Does the Committee have delegated authority to decide?	<b>Yes</b>
Are the decisions significant?	<b>No</b>
If they are significant do they affect land or a body of water?	<b>No</b>
Can this decision only be made through a 10 Year Plan?	<b>No</b>
Does this decision require consultation through the Special Consultative procedure?	<b>No</b>
Is there funding in the current Annual Plan for these actions?	<b>Yes</b>
Are the recommendations inconsistent with any of Council’s policies or plans?	<b>No</b>
The recommendations contribute to Goal 2: A Creative and Exciting City	
The recommendations contribute to the outcomes of the Creative and Liveable Strategy	
The recommendations contribute to the achievement of action/actions in the Active Community Plan	
The action is: Central Energy Trust Arena is the city’s main multi-purpose hub for sport and recreation and serves as the region’s premier sporting and events hub.	
Contribution to strategic direction and to social, economic, environmental and cultural well-being	Palmerston North has fit-for-purpose facilities that meet demonstrated community’s sport and recreation needs and retains its ability to host major sporting events.

**ATTACHMENTS**

1. Arena Fence Hoarding Wrap [↓](#) 



**CUBA ST**

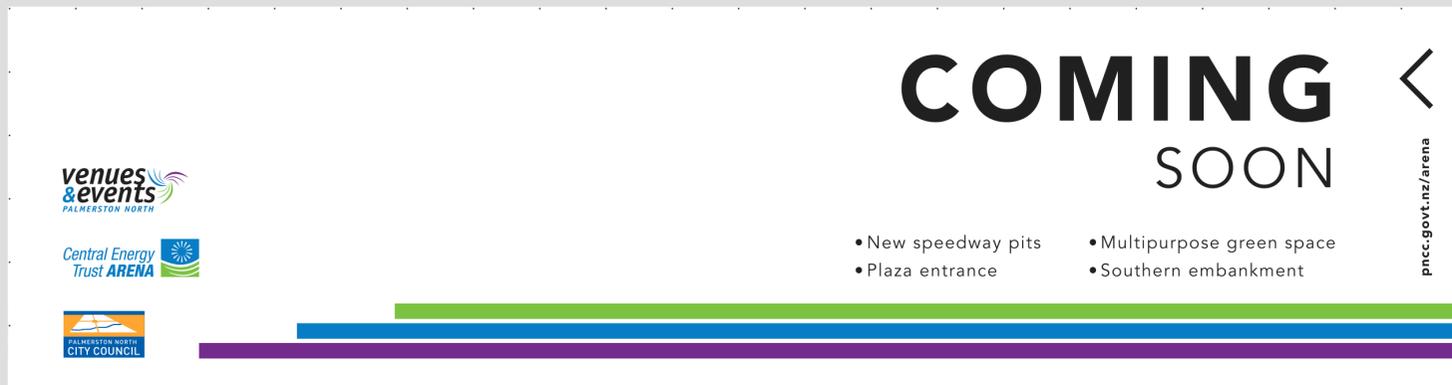
**PVC SKIN with EYELETS (no hemming)**

**Amount 1**

**Size 2400h x 9200w mm**

Notes for sending to MESH

- Digitally print onto PVC Skin (MESH)
- When PVC Skin comes back from MESH, Capture to apply eyelets where the 10mm diameter dots are



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PROJECT MANAGER: Andy Brown  
 PHONE NUMBER: 06 357 57 57  
 DESIGNER: MDD

JOB NAME: CET Central Energy Trust Arena  
 FILE NAME: CAP027724 - Fence wrap\_03-20

capture@signs

**CUBA ST**

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## CUBA ST

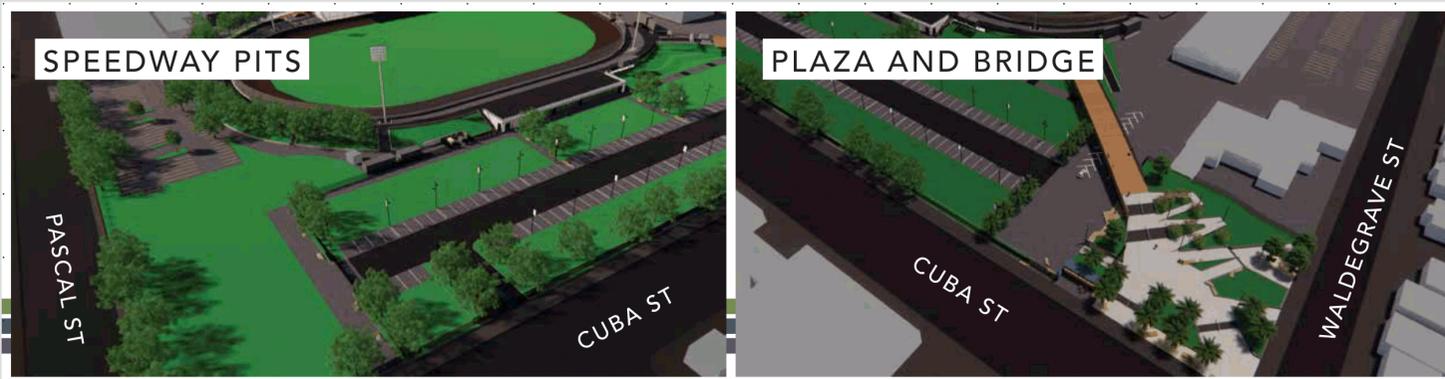
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**WALDEGRAVE ST**

**PVC SKIN with EYELETS (no hemming)**

**Amount** 1

**Size** 2400h x 9000w mm

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## WALDEGRAVE ST

PVC SKIN with EYELETS (no hemming)

Amount 1

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**WALDEGRAVE ST**

**PVC SKIN with EYELETS (no hemming)**

**Amount** 1

**Size** 2400h x 9000w mm

Notes for sending to MESH

- Digitally print onto PVC Skin (MESH)
- When PVC Skin comes back from MESH, Capture to apply eyelets where the 10mm diameter dots are



**WALDEGRAVE ST**  
**PVC SKIN with EYELETS (no hemming)**

**Amount** 1

**Size** 2400h x 9000w mm

Notes for sending to MESH

- Digitally print onto PVC Skin (MESH)

- When PVC Skin comes back from MESH, Capture to apply eyelets where the 10mm diameter dots are





## MEMORANDUM

**TO:** Infrastructure Committee

**MEETING DATE:** 3 June 2020

**TITLE:** Six Month Transport Network Safety Update Report - 2019-1

**PRESENTED BY:** Robert van Bentum, Manager - Transport and Infrastructure

**APPROVED BY:** Tom Williams, Chief Infrastructure Officer

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### RECOMMENDATION(S) TO INFRASTRUCTURE COMMITTEE

1. That the Infrastructure Committee receive the memorandum titled `Six Month Transport Network Safety Update Report – 2019-1” dated 15 May 2020.
2. That the Infrastructure Committee approve the dates for the submission of the six month update reports to be March and August of each year to align with the availability of the crash data by NZTA and Council quarterly reporting.

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### 1. BACKGROUND

- 1.1. Council is committed to improving safety for all road users, including vulnerable users such as pedestrians and cyclists through reducing all crashes but with a specific focus on reducing deaths and serious injury crashes. In line with the government’s policy statement (GPS) Council invests in a variety of measures across the network to improve safety.
- 1.2. Council has previously requested quarterly updates on specific elements of network safety focussed on users such as pedestrian, school bus users and cyclists or on specific elements of the network such as intersections. While such reporting may provide a snap-shot of the situation for specific user groups or locations, because of the integrated nature of the transport network, many interventions impact on multiple groups and safety outcomes.
- 1.3. To provide a more holistic view of safety across the network Officers have sought to develop a report which provides a safety overview of the network. Because changes in safety trends are slow to change given the small data sets and the impact of safety interventions is equally slow to emerge, it is proposed that the Network Safety Update is provided on a six monthly interval.

1.4. The scope of the update report has been developed to provide a brief overview of the safety issues, analysis of the problem and identification of possible solutions as well as an update on the actions proposed and progress towards implementation. The report is therefore divided into three areas:

- The safety problem
- Safety issues and causes
- Key approaches to improving safety
- Recent safety improvements
- Transport network safety action plan

## 2. THE SAFETY PROBLEM

### 2.1. Introduction

2.1.1. Identifying safety issues within a transport network can be achieved through:

- Analysis of crash data
- Undertaking audits of the network and any significant project intervention

2.1.2. The primary source of information on the safety of a network is the data collected on crashes in the network. NZTA maintain a database called Crash Analysis System (CAS) which is used to capture and analyse crash incidents. The database distinguishes between deaths, serious injuries and minor injury crashes which have been reported to the police and involve pedestrians, cyclists and/or vehicles in any combination.

2.1.3. While the CAS database is critical and relied on heavily by NZTA when prioritising and ranking projects for funding there are problems with relying on CAS to determine the extent of the safety problem such as:

- under-reporting of minor or non-injury crashes due to their not being reported – e.g. cyclist and vehicle
- inaccurate identification of the cause of the accident leading to incorrect conclusions around the need and design of any safety mitigation e.g. when a medical event has occurred causing a driver to leave the road
- the perception of poor safety can be a key determinant of behaviour even where there are few recorded crash incidents e.g. use of on-road cycle ways
- crash data cannot help to predict where safety issues may emerge in a network as traffic volumes change or when other improvements of changes are made to a network

2.1.4. For the reasons outlined, safety problems are also identified by undertaking safety audits of specific aspects of the network in general and by undertaking safety audit of all new projects and network modifications. These audits identify specific safety

mitigation measures which apart of re-design of the project may include signage, barriers, line-marking or other safety related treatment.

2.2. Network Wide Crash Data

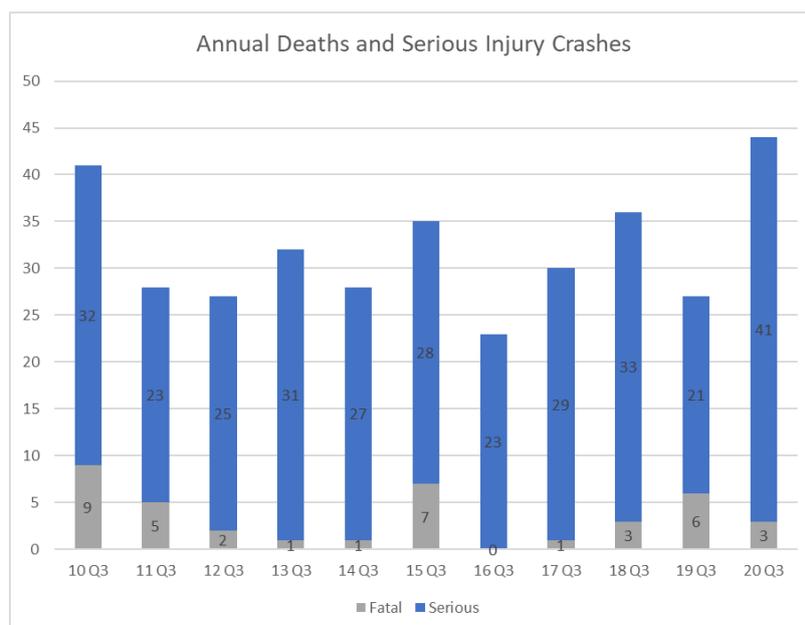
2.2.1. At a national level New Zealand has struggled in recent years with reducing the deaths and serious injury crashes on its road network. In the last few years the road toll has been rising despite significant investment by central government in safety intervention. There are likely to be many reasons for this including:

- increasing traffic volumes
- driver skill levels
- driver behaviour

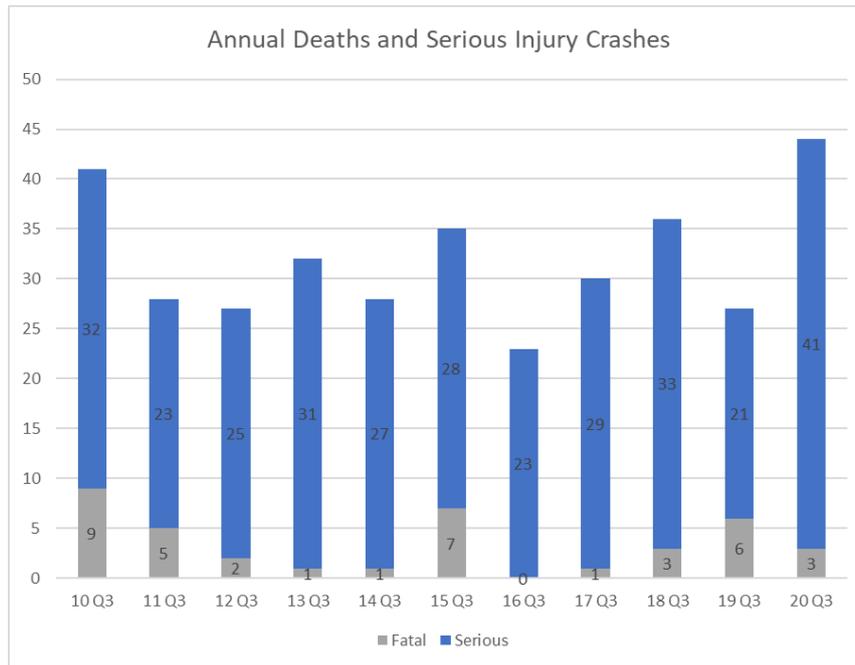
2.2.2. Council has adopted two KPI’s to monitor network safety performance with the target being an on-going reduction in each. As with the national situation, achieving on-going reductions in crashes relies on addressing a range of factors, many of which are outside of the control of Council as network manager. However by analysing the reasons for crashes and risks in the network Council is able to identify some elements within its control which it can change and modify.

2.2.3. The two KPIs tracked are listed below and Figures 1 and 2 below summarise crash data for the last and previous periods. These are:

- annual average deaths and serious injury crashes
- five year annual average deaths and serious injury crashes



**Figure 1: Annual Fatal and Serious Injury Crashes for periods ending Q3.**



**Figure 2: Five Year Annual Period of Fatal and Serious Injury Crashes for periods ending Q3.**

2.2.4. In the 12 month period between 1 April 2019 and 31 March 2020, there were 664 crashes recorded in Palmerston North. This comprised of 3 fatal and 41 serious injury crashes. This is an overall decrease of 102 crashes on the previous 12 month period. While the number of total reported crashes are down, the total number of serious injuries have increased significantly.

2.2.5. It should be noted that Q2 and Q3 of the 19/20 FY is unusually lower than previous quarters and could be attributed to NZTA crash data not being updated at the time of analysis. As such there may be additional crashes unaccounted for.

2.2.6. In comparison to previous years, the annual number of Deaths and Serious Injury Crashes have been trending upward and the period ending 31 March 2020 was the highest in the last 10 years. The 5 year period also confirms the upward trending of fatal and serious injury crashes.

2.3. Network and Project Safety Audits

2.3.1. To help inform safety planning and investment across the network Officers have completed and commissioned safety audits of specific elements of the network. While this work is on-going, deficiencies identified through these safety audits are included in minor safety programmes of work.

2.3.2. Safety audits which have been identified as being required include:

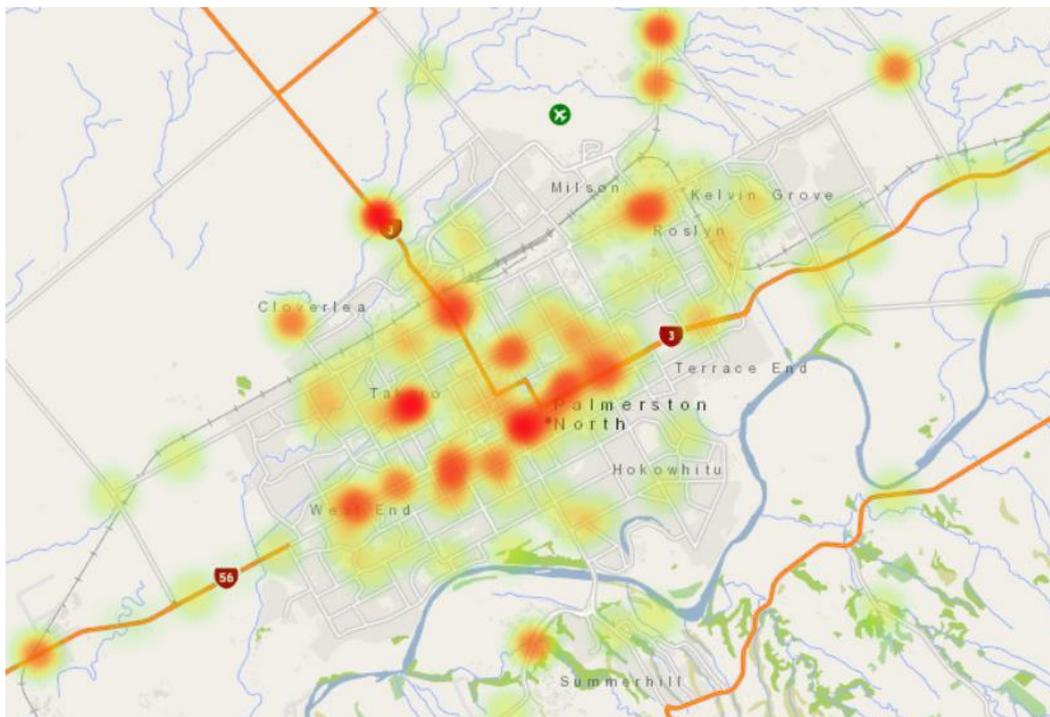
- Roundabouts
- Traffic signals
- Pedestrian and pram crossings

### 3. SAFETY ISSUES AND CAUSES

#### 3.1. Network Wide Safety Issues

3.1.1. PNCC has been working with NZTA to use crash data in combination with an understanding of the network to identify priorities for investment. The work has been focussed on developing a Network Operating Plan (NOP) and Network Operating Framework (NOF). The process makes use of a network model to combine priorities for different modes of transport on different corridors to identify priority areas for improvement.

3.1.2. A heat map showing the distribution and intensity of priority safety treatment areas within the network is included as Figure 3 below.



**Figure 3: Heat Maps of Serious and Fatal Injuries 2015-2019**

3.1.3. Many of the problem areas are intersections. The NOP / NOF analysis has identified some key issues in the network including:

- high traffic speeds on many of the older roundabouts on the collector road network e.g. Church / Cook, resulting in poor safety outcomes for cyclists and pedestrians as well as more vehicle crashes
- issues with mid-block crossings on the dual carriageway network, where vehicles on side streets are trying to cross four or more lanes of traffic. Impatience and poor judgement are resulting in a higher level of crashes at these junctions
- issues with high speeds on some local roads used as alternative routes during busy network periods

### 3.2. Fatal Crashes in the Last 12 Months

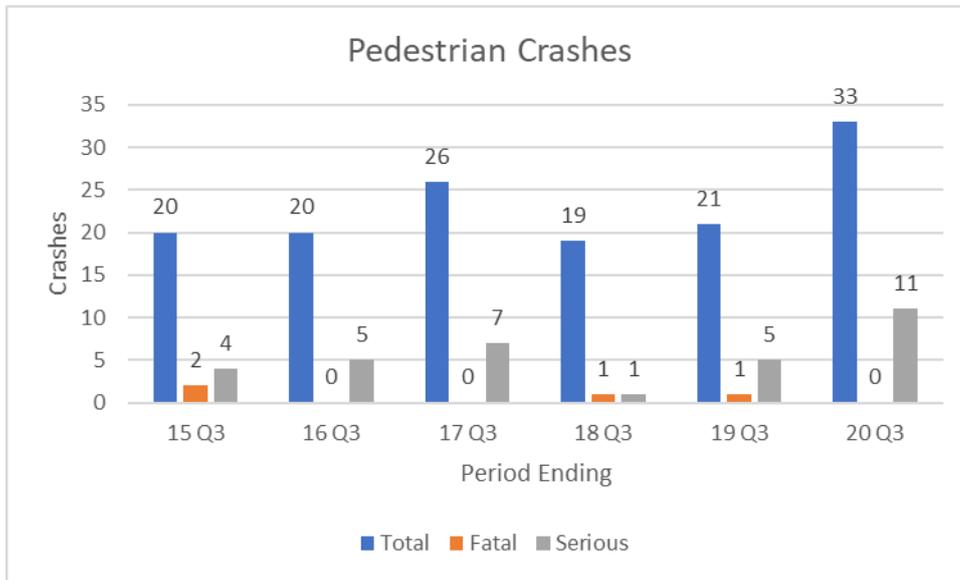
3.2.1. There were 3 fatal crashes which occurred in Palmerston North in the last 12 months and the contributing factors are outlined as follows:

- A fatality occurred on the Pioneer Highway Shared Path in September 2019, where a motorbike crashed into a cyclist. Preventing motorbikes access on shared paths, through the use of restrictive measures (e.g. Bollards, gates etc) would be expensive to roll out and prohibitive to cyclists. Instead to improve compliance, prohibitive motorbike signage on shared path entrances is planned for installation.
- One fatality occurred on Cardiff Street, Awapuni in March 2020, where the driver collided with a tree who is suspected to have died by a heart attack. Currently Cardiff Street is being considered for traffic calming treatments in Council's Road Safety Programme.
- On SH3 Napier Road a fatality occurred in March 2020, near Stoney Creek Road where the driver was travelling at excessive speed (180km/h). The driver crossed the centreline and collided with a truck. As this is a State Highway, NZTA is the responsible authority to consider any required road safety improvements on this road.

3.2.2. In general, the cause of crashes can vary wildly and can often be influenced by factors unrelated to network design and condition, such as driver behaviour and vehicle condition/design.

### 3.3. Pedestrian Crashes

3.3.1. Figure 4 below shows the trend of pedestrian crashes occurring over the last several years.



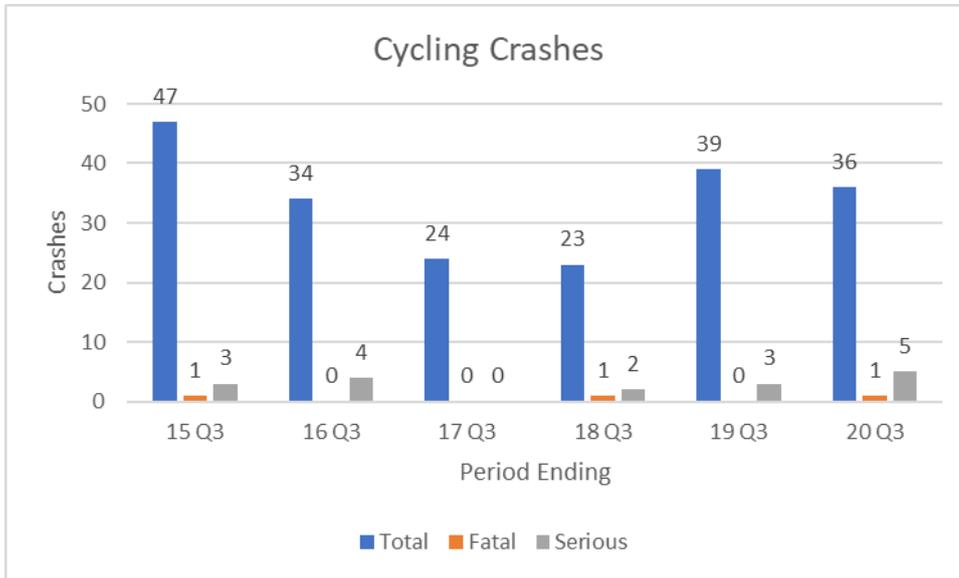
**Figure 4: Pedestrian crashes for 12 month period ending Q3.**

- 3.3.2. There have been 33 pedestrian crashes in the last 12 months, which include no fatal and 11 serious injury crash. The number of serious crashes occurring is much higher in comparison to previous years.
- 3.3.3. In general pedestrian crashes are distributed across the network however higher concentrations of pedestrian crashes do occur within the CBD where there is high pedestrian activity. In particular Square East has had five minor injury and one serious crash involving a pedestrian in the last five years.
- 3.3.4. A common barrier to walking is the ability for pedestrians to cross the road. In many locations, there are perceived safety concerns due to high speed, high volume or multilane roads, which either have no or poor crossing facilities. While locations considered unsafe may not have pedestrian related crashes at the location, they are still deterrents to getting the community walking.
- 3.3.5. Another significant contribution to pedestrian injuries is trip and fall events associated with poor condition footpaths and crossings. Surveys of the footpath network identified approximately 2100 serious footpath faults (grade 4 and 5). Approximately 20% of the serious footpath condition issues are associated with damage from the roots of street trees. Many of the serious footpath faults have been identified within the city.

**3.4. Cycle Safety Issues**

- 3.4.1. There have been 36 cycling crashes occur in the last 12 months, which include 1 fatal and 5 serious injury crash. While this is an overall decrease of 3 crashes compared to the previous period, it is an increase of 1 fatal and 2 serious crashes involving cyclists.

3.4.2. Figure 5 below shows the trend of crashes occurring over the last several years.



**Figure 5: Cycling crashes for 12 month period ending Q3.**

3.4.3. A common problem with cycling safety is at intersections. In particular roundabouts in Palmerston North have a poor record of crashes due to improper design, high operating speeds and high traffic volumes. Examples include the intersection of Cook/Church, Cook/ College and Ferguson/Victoria. The inconsistent approach to designing these roundabouts have led to confusion on how cyclists should navigate these.

**4. KEY APPROACHES TO IMPROVING SAFETY**

**4.1. NZTA Safe Networks Programme (SNP)**

4.1.1. The Governments Road to Zero initiative looks to improve road safety by reducing the number of deaths and serious injuries occurring on roads in New Zealand. To achieve this goal, the NZTA have developed the Safe Networks Programme (SNP) which looks at providing significant funding towards road safety projects over the next 10 years within a separate funding stream.

4.1.2. The SNP have developed a tool which has assessed intersections and corridors around the country where it has identified potential projects that could be eligible for subsidised funding. The approach provides a streamlined process where treatment solutions are pre-approved up to a maximum value simplifying the process of securing funding approval from NZTA.

4.1.3. During the lockdown, Council Officers met (virtually) with the SNP team and assessed all potentially eligible locations within Palmerston North. The group review 64 intersections and Corridors for possible treatment, where 53 were submitted to be considered for subsidised funding.

4.1.4. NZTA have indicated that most of the co-funding for local authority safety focussed roading programmes will be provided through this separate funding allocation. As part of this approach the Local Road Improvement funding allocation will be reduced. There is also an indication that safety programmes may attract higher levels of subsidy than the current standard FAR rate.

#### 4.2. Minor Safety Improvements

4.2.1. Council Officers receive many requests to improve road safety around the network. This includes but not limited to solutions to address crashes, speeding, pedestrian and cycle safety. To improve safety and address these concerns on our local roads, minor infrastructure is generally required. However due to the overwhelming number of requests, the available funding is insufficient to satisfy demand such that a robust prioritised process is needed to ensure the optimum safety outcome is achieved with the limited available funding.

4.2.2. Generally local road safety projects have been delivered through the Minor Safety Improvements Programme. In the past the determination and selection of projects has been rather subjective and unduly influenced by external advocacy rather than safety merit and evidence. This has led to lower value projects being prioritised ahead of others with greater merit.

4.2.3. To address this, Council Officers are developing a Road Safety Prioritisation Tool to assess projects which can deliver the greatest road safety improvement relative to the level of expenditure. To do this, the tool will categorise and evaluate requests based on traffic data/evidence, strategic alignments as well as consider surrounding land use. Projects considered to achieve the highest score in terms of safety value for money spent would be prioritised and planned for delivery through the Minor Safety Improvements Programme.

4.2.4. The prioritisation tool will look to prioritise project selection in several categories, to enable early identification and timely delivery of the programme of work. The categories adopted at this stage include:

- Local Area Traffic Management Treatments
- Pedestrian Improvements
- Cycle Improvements
- Public Transport Improvements

- 4.2.5. Local Area Traffic Management Treatments will look to address speeding and short cutting through our local roads. They will generally be prioritised in residential areas as part of greenway corridors aligning with the Urban Cycle Network Master Plan or where they are close to schools and there is a strong likelihood of children walking to school.
- 4.2.6. Pedestrian improvements will look to deliver projects to assist pedestrians to cross roads at high pedestrian demand locations. Areas around Local shopping centres, parks and school will generally be prioritised where higher pedestrian foot traffic is occurring. Investment in renewal of footpaths to address the backlog of faults will continue to be a key focus with spending of at least \$1m programmed to occur in each of the 2019/20 and 2020/21 financial years.
- 4.2.7. Cycle Improvements will look to address locations of pinch points, which poses a specific safety issue to cycling. This work will focus on existing on-road cycling routes which are not part of the Urban Cycle Network Implementation Plan.
- 4.2.8. Public Transport Improvements will look to address safety issues associated with the delivery of public transport services, bus stop locations and approaches and key intersections or corridors for bus services.
- 4.3. Urban Cycle Network Implementation
- 4.3.1. The key initiative for cycle safety is the implementation of the Urban Cycle Network Master Plan looks to deliver on a connected and integrated cycling network within Palmerston North. This will be achieved by developing key cycle corridors which will safely allow cyclists to get around the city, as well as addressing key intersection deficiencies. The programme will bring together a range of individual cycling projects into a coordinated programme of work.
- 4.3.2. The programme business case is currently being finalised prior to final submission to NZTA for funding. It is hoped that NZTA will approve funding for the 2020/21 financial year as well as provisionally approving funding into the next RLTP.
- 4.3.3. Construction work is underway on the first of the routes along College Street with planning and design well advanced for other key routes along Featherston, Summerhill Drive, Albert and Victoria Streets.

## 5. RECENT SAFETY IMPROVEMENTS

### 5.1. Road Safety Improvements

- 5.1.1. The intersection of Walding Street / Taonui Street was modified in October 2019, due to the high number of crashes occurring at this intersection for over a decade. To improve safety, changes were made to the traffic islands where vehicles on

Taonui Street were only permitted to turn left (i.e. they could not go straight through or turn right).

- 5.1.2. In November 2019, Coventry Street had two splitter islands and two slow points installed along its length. This road was selected for treatment due to the high operating speed (52km/h) and large number of crashes (10) over the past five years.
- 5.1.3. Detailed design has been completed and final procurement is awaiting resolution of a land acquisition issue, prior to constructing a roundabout at the intersection of Monrad Street and Ronberg and Pencarrow. In 2019, speed indicator devices and traffic islands were installed at this intersection as interim treatments ahead of the roundabout construction. The speed indicator devices were installed both to advise drivers of their speed and encourage them to slow down, while the traffic islands were designed to reduce the speed of approaching and turning vehicles by increasing the visibility of the intersection.

## 5.2. Pedestrian Improvements and Initiatives

- 5.2.1. In February 2020, Officers altered the traffic signal phases on church street outside the plaza to include an additional pedestrian crossing phase. The change was to improve pedestrian priority in the CBD which is anticipated to improve pedestrian movements and safety whilst discouraging unnecessary traffic through the square.
- 5.2.2. Other pedestrian improvements in the CBD are being advanced as part of the Streets for People Square East upgrade.
- 5.2.3. Furthermore, the upcoming Stage 2 of the speed limit bylaw will look to reduce the speed limit of the road within the CBD 2 of the speed limit bylaw review where a lower CBD speed limit will be explored.
- 5.2.4. Council has continued its significant investment (\$1m) in footpath renewals with the programme on track to remedy over 700 of the 2100 serious faults identified across the footpath network by the end of the 2019/20 financial year. Engagement of a panel of six contracting companies has enabled the full programme budget to be spent despite the impact of Covid-19. Addressing the backlog of footpath condition faults will require on-going renewal investment at this level for at least 3 further years, given that new faults continue to emerge and develop.

## 5.3. Cycling Improvements and Initiatives

- 5.3.1. The first stage of the College Street cycleway from Fitzherbert Ave to Victoria Ave has been completed following resealing and line marking. Work is also about to begin on the indented parking on College Street in the vicinity of the Awapuni neighbourhood centre.

5.3.2. Officers are still working with Schools to deliver the Bikes in Schools programme. This programme looks to setup schools with bikes, bike storage and tracks to enable children to development their cycle skills education. At present, there are 10 schools under the Bikes in Schools Programme, with work well advanced with Awapuni School for 2019/20 and the selection of the next school for 2020/21 underway.

## 6. TRANSPORT NETWORK SAFETY ACTION PLAN

6.1. The key elements of Council's investment in delivering long term improvements in road safety can be grouped into the following four areas of work:

- Major Road Safety Improvements
- Minor Road Safety Improvements
- Active Transport Improvement Initiatives
- Network Speed Limit Changes

6.2. Officers have identified and tabulated the key initiatives and actions across the Transport and Active Transport activities which contribute to network safety. These have been tabulated below in Table and Officers will provide updates on progress with achievement as well as adding any new initiatives as they are agreed to provide a ready reference to progress with improving Transport Network Safety.

**Table 1 Transport Network Safety Action Plan**

Recommended Action	Timeframe	Progress
<b>ROAD SAFETY IMPROVEMENTS</b>		
Inspections and audits of existing facilities – annually – March each year.	Annually – March each year.	Audit of Roundabouts completed in Jan 20. Improvements added to Minor Safety Programme
<ul style="list-style-type: none"> <li>• Implement major safety projects identified for 2020/21 incl.</li> <li>• Intersection upgrade of Park/Cook</li> <li>• Intersection upgrade of Pioneer Highway Te Wanaka Road</li> </ul>	June 2021	Park / Cook intersection currently in design, with planned construction in 20/21. Work will be aggregated with other major roading projects to secure competitive price.
Finalise Safety Network Programme (SNP) with NZTA for major safety funding for next RLTP	June 2020	Projects submitted to NZTA which are being considered for the next RLTP/NLTP.
Develop Road Safety Prioritisation Tool and review priorities for road safety for implementation under the Minor Road Safety Improvements Programme	June 2020	Tool in development and on track for completion to inform RLTP and LTP programmes of work.
Implementation of Minor Road Safety Improvements Programme 20/21	June 2021	Programme of work for 20/21 is being finalised, with a priority focus on pedestrian safety projects. Several projects already under

		investigation/development.
<b>ACTIVE TRANSPORT IMPROVEMENT INITIATIVES</b>		
Support schools to deliver Bikes in Schools infrastructure and programme and School Travel Plans	June 2020	Awapuni School is on track to be delivered in 19/20. New school for 20/21 still to be determined.  Five schools engaged with to develop school travel plans in 19/20. Ross Intermediate has been adopted, where plans for Roslyn, Cloverlea, Palmerston North Intermediate and Central Normal School are in development.
Apply for and confirm funding for Urban Cycle Network Master Plan Implementation from NZTA.	July 2020	Business case has been developed and submitted in May 2020. Awaiting NZTA's formal review and approval.
Delivery of the Urban Cycle Network Implementation Plan Projects for 20/21	June 2021	Initial planning stages have begun on several projects including Featherston Street and Albert Street.
Delivery of College Street Transport Upgrade	December 2020	Project works have begun with initial reseal of Victoria to Fitzherbert. Indented parking bays at Awapuni Shops to begin construction.
<b>PEDESTRIAN IMPROVEMENT INITIATIVES</b>		
Implement Enhanced Footpath Renewal Programme of Work	June 2021	In excess of \$1.15m will be spent on footpath renewals by 30 June 2020, following reallocation of surplus budget from vehicle crossing renewals. More than 700 serious faults remedied.
Construction of footpath extensions and upgrade projects 20/21	June 2021	Several projects being planned/coordinated, this includes new footpaths for Wyndham Street, Stanford Street, Oxford Street, Worcester Street Ashhurst, and widening of the Park Road footpath adjacent to Ongley Park.
<b>NETWORK SPEED LIMIT CHANGES</b>		
Implement Stage 1 speed limit changes	December 2020	Awaiting Council Adoption of recommendations before formal consultation and changes can be implemented
Implement Stage 2 speed limit changes	December 2021	Investigation and informal consultation of Stage 2 is still to be undertaken. This is anticipated to occur in Q1 of 20/21

## 7. NEXT STEPS

- 7.1. Officers will continue to monitor and report to Council on progress with the Transport Network Safety Action Plan on a six-monthly basis.

**8. COMPLIANCE AND ADMINISTRATION**

Does the Committee have delegated authority to decide?	<b>Yes</b>
Are the decisions significant?	<b>No</b>
If they are significant do they affect land or a body of water?	<b>No</b>
Can this decision only be made through a 10 Year Plan?	<b>No</b>
Does this decision require consultation through the Special Consultative procedure?	<b>No</b>
Is there funding in the current Annual Plan for these actions?	<b>Yes</b>
Are the recommendations inconsistent with any of Council’s policies or plans?	<b>No</b>
The recommendations contribute to Goal 2: A Creative and Exciting City	
The recommendations contribute to the outcomes of the Creative and Liveable Strategy	
The recommendations contribute to the achievement of action/actions in the Active and Public Transport Plan	
<p>The actions include:</p> <ul style="list-style-type: none"> <li>• Undertaking remedial safety work in areas with high crash or safety concerns, taking into consideration context-sensitive design (based on road function, adjacent land use and user routes).</li> <li>• Identifying and implementing pedestrian and active transport user focussed improvements to intersection and road crossings.</li> <li>• Upgrading on a prioritised basis, pedestrian routes, connections and road crossings.</li> </ul>	
Contribution to strategic direction and to social, economic, environmental and cultural well-being	The six month update provides Council with confidence that the package of projects and actions being delivered in the Strategic Transport and Active and Public Transport plans are delivering enduring and sustainable improvements in network safety for all users including specific initiatives for vulnerable users such as pedestrian, cyclists and active transport users.

**ATTACHMENTS**

Nil

## MEMORANDUM

**TO:** Infrastructure Committee

**MEETING DATE:** 3 June 2020

**TITLE:** Update Memorandum: 3 Waters Asset Condition

**PRESENTED BY:** Jono Ferguson-Pye, Assets and Planning Manager

**APPROVED BY:** Tom Williams, Chief Infrastructure Officer

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### RECOMMENDATION(S) TO INFRASTRUCTURE COMMITTEE

1. That the memorandum titled “Update Memorandum: 3 Waters Assets Condition” and reported on 3 June 2020, be received.

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#### 1. ISSUE

- 1.1 Considering recent failures of critical water and wastewater systems in several Councils (e.g. Wellington Water) Council has requested an update on the condition of the city’s 3 waters services (wastewater, water supply and stormwater) assets.
- 1.2 Wellington City Council have established a taskforce to examine why unexpected water asset failures have occurred and to develop an action plan with firm recommendations. The issues the taskforce is examining are as follows:
  - The condition of Wellington’s water infrastructure
  - The adequacy of the current renewals and maintenance programmes
  - Requirements, including investment, to deliver a sustainable long-term water network
- 1.3 The purpose of this report is to summarise the known condition of Palmerston North City’s 3 Waters assets and discuss the asset management issues that need to be addressed to ensure the sustainable delivery of 3 water services.

## 2. OVERVIEW OF 3 WATERS ASSETS

### 2.1 **Wastewater:** the wastewater system comprises the following key asset components:

- 418 km of pipeline, 5,679 manholes and 27,800 lateral connections serving Ashhurst, Aokautere, Longburn, Linton, Bunnythorpe and the city.
- 35 pumping stations
- A Tertiary treatment facility at Totara Road with primary treatment and buffer storage via two oxidation ponds at Ashhurst

### 2.2 **Water Activity:** the water system services the city, Ashhurst, Bunnythorpe, Longburn and Linton. The system comprises the following key asset components:

- 548 km of water mains, 4,650 valves, 3,128 hydrants, and 28,162 tobies
- 362 swab launchers, 196 service connections, 2095 water meters, and 405 back flow preventers
- A treatment plant and two dams at Turitea, 21 bores and pump stations, and 14 reservoirs

### 2.3 **Stormwater:** the stormwater system is made up of a:

*Primary System:* being a reticulated stormwater system of pipes, pump stations, open drains and streams including stop banks.

*Secondary System:* being a system of open swales, road, kerb and channel, detention storage areas as well as informal overland drainage pathways.

The primary and secondary systems comprise of the following key asset components:

- 218 km of pipelines and culverts, 113 km of sump, kerb and mains connection, 5,271 manholes, and 90 flood gate structures.
- 428 inlet / outlet structures, 14 km of stop banks, 15 pump stations, 24 storage and treatment basins, and 7.6 hectares of drainage reserve.

### 3. WATERS ASSET CONDITION AND PERFORMANCE UNDERSTANDING

#### Summary of Waste

##### Water Asset Condition:

- 3.1 *Collection network:* the overall condition of the collection network is in good physical condition with pipe deterioration having minimal impact on performance. The bulk of the pipes are in the young to middle part of their asset lifecycle.
- 3.2 *Isolated failures in trunk network:* while the average age of the network has significant residual life, there have been several isolated failures in key parts of the network indicating a need for more detailed and complete condition assessment. There has been no inspection of large diameter trunk mains. Past trunk main failure suggests additional investment in trunk main inspections and condition assessment is required.
- 3.3 *Wastewater Treatment Plant (WWTP):* the WWTP will need to meet the demands of the activity until the BPO is completed. The ageing plant is likely to need approximately \$4.5m of expenditure in renewal and upgrading of key treatment components to ensure the plant operates reliably until the BPO is finalised and constructed.
- 3.4 *Single point of failure vulnerability:* all the city's wastewater is treated through the WWTP. The critical nature of reliable plant performance has been highlighted by failures of some key items of mechanical plant and equipment.
- 3.5 *Water pump stations:* most pump station assets are in sound condition. However, the electrical and mechanical components are needing to be replaced due to age and obsolescence. Condition assessments have identified a significant backlog of renewals to replace components which are coming to the end of their life. There is a need to upgrade pump stations to provide higher levels of reliability, operational visibility and standardisation to reduce operational risk and the on-going cost of maintenance.
- 3.6 *Wet weather inflow:* there is an increasing frequency and volume of wet weather overflows due to significant stormwater inflow and infiltration to the wastewater network. The condition of the network is such that with an increasing incidence of high intensity rainfall events more frequent and larger volumes of wet weather overflows can be expected.
- 3.7 *Wet weather network capacity constraints:* the need for pro-active renewal and upgrade of the critical network assets including large capacity sewer mains, sewer rising mains and wastewater pump stations is highlighted by the increasing incidence of wet weather overflows and surcharging. Council is pursuing several strategies such as implementing pressure sewers, increasing wet weather storage, and looking

to identify and address stormwater inflow at source under a dedicated I&I programme.

3.8 In addition to looking to address private property stormwater inflows, Council will also invest in targeted renewal of the sewer network in the catchments with the most severe stormwater infiltration and inflow. Even with this investment the expectations around any reductions in wet weather flows are low, with the primary goal being to limit the extent to which flows will increase over time.

3.9 *Renewal planning:* the current approach to renewal planning for the wastewater activity cannot provide the necessary certainty around renewal funding requirements nor the assurance that renewals have been optimised. This is an issue that needs to be addressed through improved asset management practice and through programmes in the upcoming Long Term Plan.

**Summary of Water Supply Asset Condition:**

3.10 *Water supply network:* the water supply network and source capacity are sufficient to meet current and foreseeable future demand.

3.11 *Water supply pipelines:* most water supply pipelines are in good physical condition and exhibit no sign of structural failure. Specific condition issues for pipelines are noted in the following areas:

- Cast iron pipelines have been progressively replaced. However, remaining cast iron pipes are still contributing to discoloured water incidents but have become less of an issue as a large proportion have been replaced.
- There is significant Asbestos Cement (AC) pipework, which is coming to the end of its life. The current rate of renewals indicates 10-15 years to complete replacement of all AC pipes. There is currently a back log in renewals. The random nature of AC pipe failure is creating challenges in planning renewal priorities.
- The condition of the Ashhurst rising main was identified as a significant risk to the system. The rising main is currently being renewed with stages 1 and 2 of the 3 stage renewal project due to be completed in late 2020. The final section is scheduled for renewal in 2021/22.

3.12 *Bores and Water Compliance:* bores exhibit steady yield decline with assessed useful life between 15 and 30 years. Apart from the Railway Road bore there is currently no storage at any of the city bore sites meaning recommended minimum residual chlorine levels are not achieved in much of the network. Bore installations will need to be upgraded to include storage and treatment facilities to enable water quality to be improved to comply with legislative requirements. Additional bores will also be required to address resilience issues and respond to growth demands.

- 3.13 *Turitea Dam*: the seismic performance of the Upper Turitea Dam is assessed to be good. A detailed seismic assessment has confirmed a low risk of failure for the Safety Evaluation Earthquake. While there is residual uncertainty in respect of the upper dam's performance, the focus has shifted to how best to mitigate impacts on at risk properties and public downstream of the dam in the event of a failure.
- 3.14 *Water Treatment Plant*: the 2017 AMP recorded an overall condition score of excellent for treatment facilities and a multi-year seismic programme is in place and funded for the treatment plant. A placeholder programme is currently being investigated in preparation for future Drinking Water Standards New Zealand requirements.
- 3.15 *Turitea catchment yield*: there are no immediate supply issues but long-term the sustainable yield from the Turitea catchment will decline. This will lead to an increased reliance on bore supplies with a corresponding need to build additional redundancy and resilience across the city's bores, requiring additional capital new investment. Renewal expenditure in the bore stations must also increase to ensure current water quality, safety and levels of service are maintained.
- 3.16 *Network issues*: condition information indicates that the valves, tobies and backflow devices in the water supply network are in poor condition and present a significant contamination, security and reliability risk. The poor condition of these assets has resulted in a 100% increase in the annual expenditure on reactive maintenance and replacement. Significant targeted renewals investment is urgently required. A dedicated programme for renewal of tobies, manifolds and back flow prevention is recommended. At the current rate of renewals investment replacement of the 9000 tobies, which have no manifold or backflow, will take 25 to 30 years.

**Summary of Stormwater Asset Condition:**

- 3.17 *General condition*: the 2017 AMP noted that most of the stormwater network is in good to very good condition. However, inspection and condition data for a representative cross-section of the network is required to confirm this. It is noted that specific condition survey data for stormwater reticulation is limited. The condition grading is largely based on assumed rates of deterioration for well-constructed pipes under average conditions.
- 3.18 *Capacity and performance*: of the primary network varies widely, resulting in more frequent ponding and operation of the secondary system. Higher intensity rainfall events, increased infill and associated increases in the percentage of impervious surfaces are impacting the performance of some parts of the network. This is resulting in increased reliance on secondary drainage pathways.

- 3.19 *Targeted upgrades of network:* monitoring and investigation of specific localised ponding and flooding issues has highlighted a range of capacity issues within the existing network. A city-wide flood mitigation programme will be put forward for consideration for the Long Term Plan. This programme will be focused on large scale flood mitigation projects aimed to alleviate flooding within the city. The proposed programme will include the following:
- Large detention and or attenuation ponds for the larger developments proposed in urban growth Structure Plans
  - Re-aligning or diverting various large open channels from high risk flood areas to the outer boundary of the city
  - Renewal of large (above 900mm diameter) stormwater pipes within the city network potentially at risk of exceeding its design life or upgraded to accommodate the increasing demand of stormwater capacity
- 3.20 *Pipe work:* the 2017 AMP noted less attention has been given to the pipe network on the assumption that given most of the network is less than 50 years old there will be few condition or maintenance issues. This assumption needs to be tested through thorough condition assessment across the network.
- 3.21 *Older network components:* there is evidence of problems with the performance of the network in older parts of the city or where services are located in private land. There is also uncertainty about the condition and performance of the large diameter buried pipes (>1200mm) and box culverts.
- 3.22 *Stormwater pump stations:* the 2017 AMP noted that pump stations are in good condition, but detailed condition surveys particularly of the mechanical and electrical components are required to develop accurate renewal priorities. Further work carried out post 2017 indicates that many pump stations are not fit for purpose and poorly designed. Additional capital investment is required to upgrade many pump stations to provide for stand-by pumps, larger chambers and better electrical control to enable pumping rate to match incoming flow rates. A renewals programme informed by good condition data is needed in this area.

#### 4. ASSET MANAGEMENT MATURITY ASSESSMENT

- 4.1 In July 2019 the Asset Planning Division (APD) commissioned an independent Asset Management Maturity Assessment. The assessment is based on Treasury's model and aligns with the International Infrastructure Management Manual (IIMM).
- 4.2 The purpose of the assessment was to evaluate the Council's level of asset management practice across the organisation and highlight where the APD needs to target its work programme heading into the Long Term Plan and beyond. The

following is a brief summary of the assessment findings for the asset management of the 3 Waters assets:

*Understanding of asset condition:*

*“The single biggest issue for the Three Waters is a lack of understanding of the condition and capacity of the pipe networks. Until recently the asset networks were mainly run to failure. There has been little warning of failures nor understanding of the implications. There has been proactive replacement of water and wastewater assets, but the incidence of failures/unplanned replacement was still high. More condition inspections have been programmed which are expected to improve the knowledge of the network and target interventions to prevent asset failure.”*

*Asset register data:* overall asset data is reasonably complete across the 3 Waters activities, but there are gaps in the available condition information.

*Asset performance condition:* part of the assessment evaluation examined how the Council measures and manages the performance of its assets. The assessment noted that there are significant gaps in the 3 Waters network of assets particularly in terms of condition and performance data.

- 4.3 *Key Learnings:* the asset management maturity assessment emphasised the lack of understanding of the condition and capacity of pipe networks across the 3 Waters assets. The approach to investment in renewals needs to be informed by a strategic renewals plan directing the approach taken with each activity. However, an effective and efficient approach to renewals over the long-term cannot be achieved without robust processes and systems in place to ensure thorough asset condition information is gathered.

## 5. ASSET MANAGEMENT IMPROVEMENT

- 5.1 The maturity assessment noted the unexpected incidence of asset failures and unplanned replacement across the 3 Waters assets. The assessment has identified the on-going need for investment in a continuous process of asset condition assessment to inform optimised renewal planning and investment in the future.

- 5.2 It is acknowledged that the current approach to renewal planning for the 3 Waters assets cannot provide the necessary certainty around renewal funding requirements nor the assurance that renewals have been optimised. A better understanding of the condition and capacity of the 3 Waters networks will enable evidence based renewals decision-making and result in the long-term sustainable management of 3 Waters’ assets. The strategy for improvement is based around two key elements namely:

- Implement a greater organisational focus on asset management planning through the Assets and Planning Division.
- Investment in enhanced condition assessment and performance modelling to inform optimised renewal planning and the delivery of a sustainably managed water network.

5.3 *Asset Management Improvement Actions:* The Asset Management Maturity Assessment has provided a comprehensive suite of prioritised recommendations. These recommendations will be incorporated into the improvement actions developed for the:

- Strategic Asset Management Plan
- 3 Waters activity AMP Improvement Plans
- Reflected in the programme of works being developed to support the Long Term Plan
- Reflected in the APD's ongoing work programme to improve the level of asset management practice across the organisation and drive the delivery of the actions set out in the activity Asset Management Improvement Plans

## 6. COMPLIANCE AND ADMINISTRATION

Does the Committee have delegated authority to decide? If Yes quote relevant clause(s) from Delegations Manual 167.2	<b>Yes</b>
Are the decisions significant?	<b>No</b>
If they are significant do they affect land or a body of water?	<b>No</b>
Can this decision only be made through a 10 Year Plan?	<b>No</b>
Does this decision require consultation through the Special Consultative procedure?	<b>No</b>
Is there funding in the current Annual Plan for these actions?	<b>Yes</b>
Are the recommendations inconsistent with any of Council's policies or plans?	<b>No</b>
The recommendations contribute to Goal 4: An Eco City Seeking to ensure the city's waters assets are sustainably managed over the long-term is consistent with the aspiration of the Eco-City goal to be a future focused city that plans for the future while enhancing the natural and built environment.	
The recommendations contribute to the outcomes of the Eco City Strategy The long-term sustainable management of the city's water assets is consistent with	

achieving outcomes focused on achieving a sustainable future and a reduced ecological footprint through effective planning of infrastructure.

The recommendations contribute to the achievement of action/actions in the Three Waters Plan

The actions are:

- Provide safe water supply to the city
- Provide stormwater services that protect buildings from inundation from flooding in major events
- Provide for the safe collection, treatment and disposal of the city’s wastewater

Contribution to strategic direction and to social, economic, environmental and cultural well-being

**ATTACHMENTS**

Nil



## COMMITTEE WORK SCHEDULE

**TO:** Infrastructure Committee

**MEETING DATE:** 3 June 2020

**TITLE:** Committee Work Schedule

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### RECOMMENDATION(S) TO INFRASTRUCTURE COMMITTEE

1. That the Infrastructure Committee receive its Work Schedule dated June 2020.

### ATTACHMENTS

1. Committee Work Schedule - June 2020 [↓](#) 

INFRASTRUCTURE COMMITTEE

COMMITTEE WORK SCHEDULE – JUNE 2020

Item No.	Estimated Report Date	Subject	Officer Responsible	Current Position	Date of Instruction/ Point of Origin
1:	June-2020	Papaioea Place Redevelopment Six-Monthly Update	Chief Infrastructure Officer	Agreed at June 2019 meeting that updates could be six monthly instead of quarterly	No formal resolution; see memorandum "Papaioea Place Redevelopment Quarterly Update" dated 29-August 2018-clause-1.2
2:	June-2020	Six-Monthly Report on CET Arena Redevelopment	Chief Infrastructure Officer		Council 7-October-2019 Clause 127.2
3:	June-2020	Update: Status of 3 Waters asset condition and resilience	Chief Infrastructure Officer		
4:	June-2020	Network safety (6-monthly)	Chief Infrastructure Officer		
5:	June-2020	Streets for People Update (6-monthly)	Chief Infrastructure Officer		
6:	August 2020	Update on infill lighting required to achieve compliance in P and V categories	Chief Infrastructure Officer		19 November 2018
7:	August 2020	Programme Reporting (Quarterly)	Chief Infrastructure Officer		
8:	August 2020	Facilities Management Reform (6-monthly)	Chief Infrastructure Officer		
9:	August 2020	Roading Maintenance Contract	Chief Infrastructure Officer		
10:	September 2020	Asset Management Improvement Plan Update (6-monthly)	Chief Infrastructure Officer		
11:	September 2020	Roading Maintenance Contract (6-monthly)	Chief Infrastructure Officer		

12.	December 2020	Papaioea Place Redevelopment Six Monthly Update	Chief Infrastructure Officer		
13.	December 2020	Six Monthly Report on CET Arena Redevelopment	Chief Infrastructure Officer		Council 7 October 2019 Clause 127.2
14.	December 2020	Streets for People Update (6 monthly)	Chief Infrastructure Officer		