Utilities and Roading Committee

Agenda

Tuesday 20 March 2018

4.00pm

Waimakariri District Council Chambers
215 High Street
Rangiora

Members:
Cr Sandra Stewart (Chairperson)
Cr Robbie Brine
Deputy Mayor Kevin Felstead
Cr John Meyer
Cr Paul Williams
Mayor David Ayers (ex officio)
The Chairman and Members
WAIMAKARIRI DISTRICT COUNCIL

A Meeting of the UTILITIES AND ROADING COMMITTEE will be held in the COUNCIL CHAMBERS, 215 HIGH STREET, RANGIORA on TUESDAY 20 MARCH 2018 to commence at 4.00pm.

Adrienne Smith
Committee Advisor

Recommendations in reports are not to be construed as Council policy until adopted by the Council

BUSINESS

1 APOLOGIES

2 CONFLICTS OF INTEREST

Conflicts of interest (if any) to be reported for minuting.

3 CONFIRMATION OF MINUTES

3.1 Minutes of a meeting of the Utilities and Roading Committee held on Tuesday 12 December 2017

RECOMMENDATION

THAT the Utilities and Roading Committee:

(a) Confirms, as a true and correct record, the minutes of a meeting of the Utilities and Roading Committee held on Tuesday 12 December 2017.

4 MATTERS ARISING

5 PRESENTATION
6 REPORTS

6.1 Ohoka Road Sewer Upgrades – Chris Parton (Wastewater Asset Manager)

RECOMMENDATION

THAT the Utilities and Roading Committee:

(a) Receives report No. 170928105216.

(b) Approves the adoption of Option 7 of diverting flow from the Kaikanui pump station into the Courtenay South and Courtenay North pump stations as the recommended solution.

(c) Notes that budget provision of $219,000 is included in the 2018/19 year of the draft Long Term Plan and that the works will be carried out in that year.

(d) Circulates the report to the Kaiapoi-Tuahiwi Community Board.

6.2 Update on the Management of Council Wastewater Treatment Plants – Chris Parton (Wastewater Asset Manager)

RECOMMENDATION

(a) Receives report No. 180301021693.

(b) Supports that Council staff will make a staff submission in the range of $50,000 to the draft Long Term Plan for midge and insect management at the Kaiapoi wastewater treatment plant.

(c) Notes that Council staff will continue to monitor for the presence of sea foam along the beach between the Waimakariri River mouth and 1 km north of Council’s ocean outfall.

(d) Notes that Council staff will compile information relative to avian botulism and develop a comprehensive management strategy to minimize the chances of future incidences of avian botulism occurring.

(e) Notes that Council staff will continue work to determine the cause of elevated levels of enterococci in Council’s ocean outfall pipeline.

(f) Circulates the report to the Kaiapoi-Tuahiwi Community Board, the Rangiora-Ashley Community Board, and the Woodend-Sefton Community Board for information.
6.3 **Poyntzs Road Source Upgrade Project – Consultation – Colin Roxburgh (Water Asset Manager)**

*RECOMMENDATION*

THAT the Utilities and Roading Committee recommends:

THAT the Council:

(a) **Receives** report No. 180305022630.

(b) **Notes** that staff have not been able to complete the required community consultation with the Poyntzs Road, West Eyreton and Summerhill water supply schemes regarding the proposed Poyntzs Road source upgrade prior to or to coincide with the draft 2018-28 Long Term Plan consultation.

(c) **Notes** that the budget allowance of $793,000 for the Poyntzs Road scheme source upgrade in the 2018/19 financial has been included for consultation as part of the draft 2018-28 Long Term Plan.

(d) **Resolves** that the physical works that this budget is intended for will not be implemented until Council has specifically approved this occurring, following consultation with the relevant advisory groups, community boards and communities.

(e) **Notes** that this strategy will give staff the required time to undertake the necessary consultation, without requiring that the project be delayed for an unnecessarily long period of time.

(f) **Notes** that the significant rating implication of the proposed expenditure does not eventuate until the 2019/20 financial year, by which time targeted consultation will have been completed.

(g) **Circulates** this report to the Oxford-Ohoka and Rangiora Ashley Community Boards for their information.

7 **REPORTS/MEMOS FOR INFORMATION ONLY**

7.1 **Pedestrian Refuges in the Ashgrove School environs – Kathy Graham (Journey Planner/Road Safety Co-ordinator)**

(refer to attached copy of report no. 171201130547 to the Rangiora-Ashley Community Board meeting of 13 December 2017)

7.2 **Request Authorization for Direct Engagement of Kauri Park Nurseries – Chris Parton (Wastewater Asset Manager)**

(refer to attached copy of report no. 180208013505 to the Management Team meeting of 26 February 2018)

7.3 **Drainage Maintenance Contract – Simon Collin (Infrastructure Strategy Manager)**

(refer to report no. 180213014265 to the Management Team meeting of 26 February 2018). This report has been circulated to members separately.

*RECOMMENDATION*

THAT the Utilities and Roading Committee:

(a) **Receive** Items 7.1 and 7.3 for information.
8 PORTFOLIO UPDATES

8.1 Roading – Councillor John Meyer
8.2 Drainage and Stockwater – Councillor Sandra Stewart
8.3 Utilities (Water Supplies and Sewer) – Councillor Paul Williams
8.4 Solid Waste – Councillor Robbie Brine

9 QUESTIONS

10 URGENT GENERAL BUSINESS

**BRIEFING**

At the conclusion of the meeting, there will be a briefing for the committee, on the following matters:

- 20 February 2018 Flood Event – 3 Waters Debrief
- Pond C Update
- Recycling and upcoming kerbside collection contract
WAIMAKARIRI DISTRICT COUNCIL

MINUTES OF THE MEETING OF THE UTILITIES AND ROADING COMMITTEE HELD IN THE COUNCIL CHAMBERS, 215 HIGH STREET, RANGIORA ON TUESDAY 12 DECEMBER 2017 AT 4.00PM

PRESENT
Councillor R Brine (Chairperson), Mayor D Ayers, Deputy Mayor K Felstead, Councillors J Meyer and P Williams.

IN ATTENDANCE
Councillors W Doody, A Blackie and N Atkinson, D Gordon (from 5pm) Messrs J Palmer, (Chief Executive), G Cleary (Manager Utilities and Roading), K Simpson (3 Waters Manager), C Roxburgh (Water Asset Manager), C Parton (Wastewater Asset Manager), Mrs K Waghorn (Solid Waste Asset Manager), O Davies (Drainage Asset Manager), S Collin (Infrastructure Strategy Manager) and A Smith (Committee Advisor)

1 APOLOGIES
An apology for absence was received from Councillor S Stewart and apologies from Deputy Felstead and Meyer for departure at 6pm. The meeting was subsequently finished before this time.

2 CONFLICTS OF INTEREST
There were no conflicts of interest noted.

3 CONFIRMATION OF MINUTES
3.1 Minutes of a meeting of the Utilities and Roading Committee held on Tuesday 15 August 2017

Moved Councillor Felstead seconded Councillor Williams

THAT the Utilities and Roading Committee:

(a) Confirms, as a true and correct record, the minutes of a meeting of the Utilities and Roading Committee held on Tuesday 15 August 2017.

CARRIED

4 MATTERS ARISING
There were no matters arising.

5 PRESENTATION
There were no presentations.
6 REPORTS

6.1 Garrymere Water Supply Source Upgrade – Request to Consult with community regarding options to meet Drinking Water Standards for New Zealand – Sean de Roo (Project Coordinator) and Colin Roxburgh (Water Asset Manager)

S de Roo and C Roxburgh presented this report which provided an update on the options for upgrading and funding the upgrade of the Garrymere water supply scheme. S de Roo highlighted the four options that will be offered to the community for consultation. Three other options were originally considered but these do not achieve compliance with the DWSNZ (Drinking Water Standards of NZ). It is planned to consult with the community during January/February 2018.

Due to the small number of properties on this water scheme, any of the options will have a significant impact on each of these households.

Councillor Gordon asked if advance warning could be given to Councillors of dates when public meetings are set, so they are able to attend.

Moved Councillor Williams seconded Councillor Brine

THAT the Utilities and Roading Committee:

(a) Receives report No. 171128128873.

(b) Approves staff to begin the community consultation process with the Garrymere community on the basis of the four options presented as being viable (Options A, B, C and D). The community consultation would involve the distribution of an information pamphlet followed by a public meeting.

(c) Recommends to the Council that it consider funding options for the scheme upgrade as part of the Draft Long Term Plan that could include partial funding from other water supply schemes, or the general rate.

(d) Notes that the options of point of entry treatment, connecting to the Ashley water supply scheme and not upgrading were considered but are not considered to be viable either due to high cost, not complying with the DWSNZ, or both.

(e) Notes that this process has been recommended by the Rangiora-Ashley Community Board, subject to staff investigating the option of point of entry treatment further which has now been completed (refer to report 171025115123).

(f) Notes that following the community consultation, staff will report back to the Community Board to provide a summary of the feedback received and to seek endorsement of the recommended option prior to staff reporting back to Council.

CARRIED

Deputy Mayor Felstead suggested that it is important to keep the communities of Summer Hill and West Eyreton informed. Staff noted that this was intended to be done.
6.2 Utilities and Roading Activity Management Plans 2018 – Gerard Cleary (Manager Utilities and Roading) and Simon Collin (Infrastructure Strategy Manager)

S Collin (Infrastructure Strategy Manager), K Simpson (3 Waters Manager) and Y Warner (Roading) were present during consideration of this report. The report presented the draft 2018 Roading, Water Supply, Wastewater, Drainage, Stock Water and Solid Waste Activity Management Plans.

S Colin spoke to a PowerPoint presentation which explained that the Activity Management Plans are business plans which describe the activity and explain how agreed levels of service are going to be delivered. The financial projections from the AMPs are the primary input to the draft LTP budget. Financial projections take into consideration levels of service, growth and asset renewals. AMPs also provide the building blocks of the Infrastructure Strategy.

These draft AMPs are an update to the 2015 version. The AMPs include Levels of service and Key projects/issues for each activity. The new reporting hierarchy is a major change from the 2015 review. This review also includes incorporation of recommendations from previous peer reviews, review of level of service to improve clarification and growth projections updated. The review has highlighted the need for some capacity reviews, further development of risk based renewals and funding models, and the time horizons for financial forecasts have been extended.

Questions

Councillor Blackie enquired about “Park and Ride” and it was confirmed by Bill Rice that this is currently for Bus use, but could include train travel, if a commuter train system was established.

Regarding roading projects, it was advised that Council Roading staff have met with LTNZ Regional representatives, who have indicated that the Council would get support on suggested projects. These would also need to get national roading approval and it is unknown if this approval would be given prior to the Council considering its Long Term Plan.

Relating to renewal funding for 3 Waters activities, it is intended that funding for renewal projects will be provided by a special fund accumulated from depreciation.

J Palmer noted that funding challenges for small water supplies will always remain, whether UV or chlorination is required. There is a lot of funds in water schemes and no matter where the water is sourced from, these will always require some upgrading.

Councillor Meyer asked about the Ocean Outfall consent, if renewal of the consent was potentially brought forward, what does that mean for Council? S Collin said if the volume of water coming through the scheme is above that required in the consent, it may be necessary to apply for a variation to the consent. G Cleary noted that MKT through the Iwi Management Plan recommends that the Ocean Outfall schemes both in Waimakariri and in Christchurch not be renewed.

Moved Councillor Meyer seconded Councillor Felstead

THAT the Utilities and Roading Committee:

(a) Receives report No 171122126970.
Notes the following draft 2018 Activity Management Plans for Roading, Water, Wastewater, Drainage, Stockwater, and Solid Waste which are works in progress, with completion programmed before the January LTP Budget Meetings.

i. Introduction, IFR-02-01, TRIM 170724076981

ii. Roading AMP, IFR-02-02.04

<table>
<thead>
<tr>
<th>(b) Scheme / Document Reference</th>
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<td>Section 8 Asset Management Practices Waimakariri Transport AMP 2018</td>
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<td>Section 9 Plan Improvement And Monitoring Waimakariri Transport AMP 2018</td>
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<td>Section 10 Appendices Waimakariri Transport AMP 2018</td>
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<td>Appendix A Glossary of Terms Waimakariri Transport AMP 2018</td>
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<td>Appendix C Level Of Services Waimakariri Transport AMP 2018</td>
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<td>Appendix E Capital Works Forward Works Programme Waimakariri Transport AMP 2018</td>
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i. Water Supply AMP, IFR-02-03

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### ii. Wastewater AMP, IFR-02-04

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### iii. Drainage AMP, IFR-02-05

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iv. Stockwater AMP, IFR-02-06

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v. Solid Waste AMP, IFR-02-07

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<td>Solid Waste AMP November 2018</td>
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(c) Notes that the levels of service provided for are reflected in the draft budgets for the Long Term Plan (LTP).

(d) Notes that the suite of draft utilities and roading Activity Management Plans will be reported to Council at the January 2018 LTP Budget Meetings for adoption.

(e) Circulates a copy of this report to all boards for their information.

CARRIED

Councillor Meyer commended the staff on this report and the level of work that has gone into the Activity Management Plans. These are very comprehensive plans.

6.3 Ocean Outfall – 2016-2017 Compliance Review – Chris Parton (Wastewater Asset Manager)

C Parton presented this report with an update to the committee on the operation of the Eastern District Sewer Scheme Ocean Outfall for the 2016/2017 reporting year. Consent compliance for monitoring data is to firstly meet required frequency of monitoring and also does the monitoring data comply with any numerical limits specified in the consent conditions.

For 2016/17 the Ocean Outfall required sampling frequency was met except for two occasions of minor non-compliance. The first exception was where the sampling frequency was not met for metals and metalloids, due to a
misinterpretation by the testing laboratory of the required tests. The second exception was monthly sampling or total nitrogen and total phosphorus. An incorrect test request form was provided to the laboratory by Council staff so not all required parameters were analysed. C Parton confirmed that procedures have been reviewed and updated to minimise the possibility of these oversights occurring on future tests.

Councillor Atkinson, noted the $75,000 budgeted for testing the shoreline relating to the presence of sea foam. S Collin provided an update on this matter – results of a tests show there is no contamination of the beach. There has been a suite of tests undertaken to date, but there hasn’t been any further presence of sea foam on the beach. Until the foam is present again, the testing can’t be carried out. The beach in this area is inspected regularly by Council staff for the presence of sea foam and local residents have also been asked to inform the Council if and when sea foam is present.

Moved Deputy Mayor Felstead seconded Councillor Williams

THAT the Utilities and Roading Committee:

(a) Receives report No.170928105223.

(b) Notes that the Ocean Outfall adhered to consent conditions for the year 2016-2017 apart from a minor non-compliance issue for not properly sampling for metals.

(c) Notes that the upgrades at the Woodend and Rangiora wastewater treatment plants will provide increased treatment at these two plants.

(d) Circulates this report to Council for their information.

CARRIED

7 REPORTS/MEMOS FOR INFORMATION ONLY

7.1 Kaiapoi Tanker Filling Point – Colin Roxburgh (Water Asset Manager)  
(copy of report no. 171102118733 attached to the Kaiapoi-Tuahiwi Community Board meeting of 20 November 2017)

7.2 Variation to Contract 16-49 to lay a new water main along Cass Street and Feldwick Drive –Gary Boot (Senior Engineering Advisor)  
(copy of memo no. 171129129663 attached)

Moved Deputy Mayor Felstead seconded Councillor Williams

THAT the Utilities and Roading Committee:

(a) Receive Items 7.1 and 7.2 for information.

CARRIED

8 PORTFOLIO UPDATES

8.1 Roading – Councillor John Meyer

Nothing new to report.

8.2 Drainage and Stockwater – Councillor Sandra Stewart

Councillor Stewart was not present.
8.3 Utilities (Water Supplies and Sewer) – Cr Paul Williams

Councillor Williams noted a period of high demand for water in the district, resulting in low reservoir alarms in Rangiora, Kaiapoi and Cust schemes and people need to be aware of saving water. K Simpson added that though not on water restrictions, there has been warning advertisements of low level alarms, stressing the importance to conserve water and for people to be wise with their water use. Council needs to make sure the infrastructure is running well also.

8.4 Solid Waste– Cr Robbie Brine

Councillor Brine attended a meeting of the Canterbury Regional Landfill Joint committee on Friday 1 December, 2017.

9 MATTERS TO BE CONSIDERED WITH THE PUBLIC EXCLUDED

Section 48, Local Government Official Information and Meetings Act 1987

Moved  Councillor Felstead seconded Councillor Meyer

THAT the public be excluded from the following parts of the proceedings of this meeting.

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:

<table>
<thead>
<tr>
<th>Item No</th>
<th>Minutes/Report of:</th>
<th>General subject of each matter to be considered</th>
<th>Reason for passing this resolution in relation to each matter</th>
<th>Ground(s) under section 48(1) for the passing of this resolution</th>
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<td>9.1</td>
<td>Minutes of the public excluded portion of a meeting of the Utilities and Roading Committee 15 August 2017</td>
<td>Confirmation of Minutes</td>
<td>Good reason to withhold exists under Section 7</td>
<td>Section 48(1)(a)</td>
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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 relevant part of the proceedings of the meeting in public are as follows:

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<tr>
<th>Item No</th>
<th>Reason for protection of interests</th>
<th>Ref NZS 9202:2003 Appendix A</th>
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<tr>
<td>9.1</td>
<td>Protection of privacy of natural persons To carry out commercial activities without prejudice</td>
<td>A2(a) A2(b)ii</td>
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CARRIED
10 **QUESTIONS**

There were no questions.

11 **URGENT GENERAL BUSINESS**

There was no urgent general business.

There being no further business, the meeting closed at 5.30pm.

**CONFIRMED**

_________________________  
Chairman

_________________________  
Date

**BRIEFING**

At the conclusion of the meeting, staff provided a briefing on the outcome of the Havelock North Water Inquiry.
1. SUMMARY

1.1. The purpose of this report is to update the Utilities and Roading Committee on investigations toward improving the wastewater reticulation system in Kaiapoi. A portion of the wastewater reticulation system in Ohoka Road between Peraki Street and Williams Street is undersized to convey wastewater in the catchment. A plan of the area is included on Figure 1.

1.2. The reticulation system has experienced blockages and overflows from rainfall events in July and August 2017. In the rainfall event that occurred on 21st July, 2017, the residents of the Ranui Mews housing complex were evacuated from their homes and placed in hotel-type accommodations because of flooding in the area and the wastewater system’s inability to convey these higher than normal flows. This inability to convey wastewater flows caused raw sewage to backup into the residences. During a second large rainfall event on 14th August, 2017, sucker trucks were used to remove sewage from the reticulation system to ensure that this evacuation did not happen again. This arrangement has been used three times again in larger rain events since August 2017, with the most recent time being on 20th and 21st February, 2018, during ex-Cyclone Gita.

1.3. Council Project Delivery Unit (PDU) and 3 Waters staff identified and evaluated seven options to alleviate the over-utilization of this part of the reticulation system. Six options included replacing a part of the reticulation system with larger pipes, while a seventh option identified removing part of the Ohoka Road catchment and diverting it to a different catchment. A multi-criteria decision analysis (MCDA) was used to assess each of these options.

1.4. Option 7 which diverts the flow from the Kaikanui pump station out of the Ohoka Road catchment and into the Courtenay South pump station catchment is the recommended option. This work involves the replacement of electrical components and pumps in three pump stations and installing approximately 65 meters of new pumping main between the Kaikanui pump station and the reticulation in the catchment for the newly-constructed Courtenay South pump station. Of the seven options considered, it is the lowest cost option and received the best MCDA score of all options evaluated. The total cost of this option is
estimated at $219,000. The budget for this option was placed in year 1 of the draft Long Term Plan.

Attachments:

i. Map of the area of work
ii. Options analysis

2. RECOMMENDATION

THAT the Committee:

(a) Receives report No. 170928105216.

(b) Approves the adoption of Option 7 of diverting flow from the Kaikanui pump station into the Courtenay South and Courtenay North pump stations as the recommended solution.

(c) Notes that budget provision of $219,000 is included in the 2018/19 year of the draft Long Term Plan and that the works will be carried out in that year.

(d) Circulates the report to the Kaiapoi-Tuahiwi Community Board.
Figure 1 – Ohoka Road Vicinity Map
3. **ISSUES AND OPTIONS**

3.1. A portion of the reticulation system in Kaiapoi is undersized. The section of the system that is undersized is between Williams Street and Peraki Street, between manhole WW007758 and manhole WW007739 in Ohoka Road. This section of the system receives heavier than normal flows during rainfall events, suggesting that there are high levels of inflow and infiltration entering the system in the area.

3.2. Of particular concern is the recently constructed Ranui Mews elderly housing complex between Williams Street and Hills Street. This housing complex is served by the 150mm sewer main described above. In the rainfall event that occurred on 21st July, 2017, the residents of the complex were evacuated and placed in hotel-type accommodations because of flooding in the area and the wastewater system’s inability to convey wastewater flows, causing sewer backups into residences.

3.3. The PDU Network Planning Team has assessed the amount of flow in this section of the system, particularly during larger rainfall events, and has determined that the existing 150mm diameter main does not have enough capacity.

3.4. Seven options were identified to alleviate the over-utilization of this part of the reticulation system. Options 1 through 6 involve installing new pipelines in either new or existing alignments in Ohoka Road. Option 7 involves installing a short section of rising main and making electrical modifications to three existing pump stations to move the flow from the Kaikanui pump station on Courtenay Drive out of the Ohoka Road catchment and into the Courtenay South pump station catchment. It should be noted that option 6 is considerably more expensive than options 1 through 5 because it involves replacing the water main in Ohoka Road because of its close proximity to the sewer main.

3.5. An eighth option to remedy the overutilization of this section of the reticulation system involves investigations into the source of the excessive inflow and infiltration in this part of the system and then removing as much of the excess water as possible. This option will be addressed in the hydraulic model update for the Kaiapoi collection system and future capital works.

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<tr>
<th>Option</th>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Install new 225mm sewer main along existing alignment with open trench.</td>
<td>$ 574,000</td>
</tr>
<tr>
<td>2</td>
<td>Install new 225mm sewer main along existing alignment with pipe bursting.</td>
<td>$ 495,000</td>
</tr>
<tr>
<td>3</td>
<td>Install new 225mm sewer main on south side of Ohoka Road.</td>
<td>$ 495,000</td>
</tr>
<tr>
<td>4</td>
<td>Install new 150mm sewer main on south side of Ohoka Road to serve as parallel sewer.</td>
<td>$ 439,000</td>
</tr>
<tr>
<td>5</td>
<td>Install new 150mm sewer main on south side of Ohoka Road as overflow sewer.</td>
<td>$ 273,000</td>
</tr>
<tr>
<td>6</td>
<td>Install new 225mm sewer main and new water main in same alignments as existing.</td>
<td>$ 718,000</td>
</tr>
<tr>
<td>7</td>
<td>Divert flow from Kaikanui pump station to Courtenay South and Courtenay North pump station</td>
<td>$ 219,000</td>
</tr>
<tr>
<td>8</td>
<td>Investigate and reduce inflow and infiltration in the existing reticulation system.</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

3.6. Each of these options was assessed using a high-level MCDA. The output of the MCDA is included at the end of this document. As shown in table 2, option 7 yielded the best score of all options and is therefore the preferred option. This option is the lowest cost of all considered, reduces the over-utilization of the existing sewer main in Ohoka Road, and is the least disruptive and safest option of all assessed.

3.7. A plan of this area is included in Figure 2.
3.8. In addition to the result of the MCDA recommending selection of option 7, re-routing the pump station to the Courtenay Drive catchment is a more efficient configuration of the wastewater system in this area. When the Kaikanui pump station was constructed, the reticulation system in Courtenay Drive did not exist; therefore, the only option for discharge from the pump station was in Ohoka Road. The existing arrangement is against gravity in the area, as water is being pumped west and uphill away from the treatment plant to a different catchment and then on to other pump stations before being pumped to the wastewater treatment plant. Re-routing the pump station into the Courtenay Drive catchment is a much more efficient movement of wastewater through the Kaiapoi reticulation system.
3.9. It is recommended Option 7 be implemented.

3.10. Further to the modifications to the pump station and reticulation, PDU staff are updating the hydraulic model for the Kaiapoi reticulation system. Of particular interest are those parts of the collection system that see higher than normal levels of inflow and infiltration (I&I) from stormwater runoff and groundwater. I&I in a wastewater reticulation system takes capacity that is otherwise planned and constructed for wastewater service. If I&I is removed from a reticulation system, then further upgrades to increase capacity can be delayed.

3.11. PDU and 3 Waters staff inspect parts of the different reticulation systems to identify these areas of high I&I. When they are identified, they are programmed for either relining or replacement. Identifying these areas and programming them for renewal or replacement will be a large part of the Kaiapoi reticulation system model update to be completed by the end of 2018.

3.12. Investigation of I&I in the Ohoka Road catchment will continue, and capital works to remove I&I in the catchment will be necessary in future years. Additional upgrades to the existing 150mm line in Ohoka Road may still be needed in the future to achieve level of service.

4. **COMMUNITY VIEWS**

4.1. The Community has not been consulted regarding this matter; however, Council staff believe that the works will improve their level of wastewater service and therefore don’t expect any significant opposition to this work.

5. **FINANCIAL IMPLICATIONS AND RISKS**

5.1. The estimate for the cost of this work is $219,000. This estimate includes all labour, materials, and professional services necessary to complete the system upgrades. This work is budgeted in the 2018-19 draft annual plan budget and will be carried out in that year.

5.2. Council staff notes that this is urgent work that shall be carried out as soon as possible; however, sufficient time does to design, consent, and construct the project does not remain in the current financial year. Therefore, the works will be carried out as early as possible in the next financial year.

6. **CONTEXT**

6.1. **Policy**

This matter is not a matter of significance in terms of the Council’s Significance Policy.

6.2. **Legislation**

The Council has committed to meeting certain levels of service as specified in the Activity Management Plan for the Wastewater System. There are two levels of service that pertain to this work. Those are:

- SeW 09 – Overflows on Private Property - Number of recorded overflows on private property found to be the result of insufficient capacity in the reticulation system for any rainfall up to a 1 in 2 year event, for areas designed prior to 1999.
• SeW 11 – Percentage of respondents to a three-yearly community survey that have an opinion that rates the service as "Satisfactory" or "Very Satisfactory."

Continued overflows and backups because of inaction in this area will contribute to a declining level of service for each of these metrics. Inaction will also cause the Council to incur unnecessary reactive maintenance costs when reinstating service. This reactive maintenance expense is a sunk cost that would otherwise not be incurred and could be passed on to customers as a savings in their rates.

6.3. Community Outcomes

6.3.1. The expected outcome from this work will be an improved level of service for wastewater. This portion of Kaiapoi should not experience loss of wastewater service because of excessive flows in the mains.
### Ohoka Road Sewer Upgrade Options Assessment

<table>
<thead>
<tr>
<th>Option Number</th>
<th>Description</th>
<th>Sewer Cost</th>
<th>Water Cost</th>
<th>Total proposed cost</th>
<th>Score</th>
<th>Risk of damage (natural hazard, EQ)</th>
<th>Resilience</th>
<th>Ease of maintenance and repair</th>
<th>Dewatering Consent</th>
<th>Water Cost</th>
<th>Total (lowest score is best) 29 17 18 21 17 18 0</th>
<th>Trade off</th>
<th>Electrical and controls to be upgraded</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Replace sewer main and manholes WW002108 Ohoka Road including replacing a section of 200mm AC water main</td>
<td>$208,000.00</td>
<td>$270,000.00</td>
<td>$478,000.00</td>
<td>1.00</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>21 17 18 0 17 18 0</td>
<td>0</td>
<td>Not able to retest new pumps for Courtenay South or North Pump stations</td>
</tr>
<tr>
<td>4</td>
<td>Replace sewer main and manholes WW002108 Ohoka Road including replacing a section of 200mm AC water main</td>
<td>$510,000.00</td>
<td>$270,000.00</td>
<td>$780,000.00</td>
<td>2.00</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>22 21 17 18 17 18 0</td>
<td>0</td>
<td>Able to restock VFD's procured for Courtenay South Pumps (not used)</td>
</tr>
</tbody>
</table>

### Table 2 – Multi-Criteria Decision Analysis

<table>
<thead>
<tr>
<th>Option Number</th>
<th>Description</th>
<th>Sewer Cost</th>
<th>Water Cost</th>
<th>Total proposed cost</th>
<th>Score</th>
<th>Risk of damage (natural hazard, EQ)</th>
<th>Resilience</th>
<th>Ease of maintenance and repair</th>
<th>Dewatering Consent</th>
<th>Water Cost</th>
<th>Total (lowest score is best) 29 17 18 21 17 18 0</th>
<th>Trade off</th>
<th>Electrical and controls to be upgraded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Replace sewer main and manholes WW002108 Ohoka Road including replacing a section of 200mm AC water main</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 0 0 0 0 0 0</td>
<td>0</td>
<td>Not able to restock new pumps for Courtenay South or North Pump stations</td>
</tr>
<tr>
<td>2</td>
<td>Replace sewer main and manholes WW002108 Ohoka Road including replacing a section of 200mm AC water main</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 0 0 0 0 0 0</td>
<td>0</td>
<td>Not able to restock new pumps for Courtenay South or North Pump stations</td>
</tr>
</tbody>
</table>
WAIMAKARIRI DISTRICT COUNCIL

REPORT

FILE NO and TRIM NO: SEW 01-05 / 180301021693

REPORT TO: Utilities and Roading Committee

DATE OF MEETING: 20 March 2018

FROM: Chris Parton, Wastewater Asset Manager

SUBJECT: Update on the Management of Council Wastewater Treatment Plants

1. SUMMARY

1.1 The purpose of this report is to update the Utilities & Roading Committee on the management of wastewater treatment plants in the Waimakariri District Council.

1.2 Specifically, staff would like to update the committee on efforts around:

- Midges and other insects around treatment plant sites,
- Generation of odours at treatment plant sites,
- Monitoring of sea foam that could be a result of Council’s ocean outfall,
- Efforts toward minimizing chances of future incidences of avian botulism, and
- Further testing to determine the cause of excessive levels of enterococci in the ocean outfall.

Attachments:

i. Report from ESR on sea foam analysis

2. RECOMMENDATION

THAT the Utilities & Roading Committee

(a) Receives report No. 180301021693.

(b) Supports that Council staff will make a staff submission in the range of $50,000 to the draft Long Term Plan for midge and insect management at the Kaiapoi wastewater treatment plant.
Notes that Council staff will continue to monitor for the presence of sea foam along the beach between the Waimakariri River mouth and 1 km north of Council’s ocean outfall.

Notes that Council staff will compile information relative to avian botulism and develop a comprehensive management strategy to minimize the chances of future incidences of avian botulism occurring.

Notes that Council staff will continue work to determine the cause of elevated levels of enterococci in Council’s ocean outfall pipeline.

Circulates the report to the Kaiapoi-Tuahiwi Community Board, the Rangiora-Ashley Community Board, and the Woodend-Sefton Community Board for information.

3. BACKGROUND

3.1 Council staff would like to update the Utilities and Roading Committee on a number of items related to the management of wastewater treatment plants in Waimakariri District Council.

3.2 There has been concern from the public regarding these issues. Council has received feedback and complaints from members of the community in person, through its service request system, and via email.

3.3 The following section contains information relating to each of these issues.

4. Issues and Options

4.1 Midges and Other Nuisance Insects Around Wastewater Treatment Plants.

4.2 Council has set a level of service target of no complaints from midges or other nuisance insects related to its wastewater treatment plants. This level of service has generally been met in the past; however, there have been occasional complaints received regarding midges around the Kaiapoi wastewater treatment plant.

4.3 Council has received one complaint regarding midges at the Kaiapoi treatment plant this financial year; therefore, the level of service for midges will not be met this quarter. A photo below shows the number of midges at this residence.

4.4 To aid in meeting this level of service in the future, Council commissioned a consultancy, Beca, to develop a plan for managing midges at the Kaiapoi plant.

4.5 The report from Beca recommended adoption of four different strategies to better manage midges:

- Install insect traps around the plant site to monitor the number of midges present
- Apply insecticide in spring and summer to kill midge larvae,
• Apply insecticide in spring and summer to kill midge adults, and

• Establish vegetated kill zones around the plant site to attract adults for further contact with insecticides.

4.6 Council staff will review all options to manage nuisance insects around its treatment plant sites with all environmental effects being considered before a final plan is implemented.

4.7 Council staff will incorporate these recommendations from Beca, as well as information from other sources, into a pilot project for inclusion in the Long Term Plan commencing in the 2018/2019 financial year.

4.8 **Generation of Odours from Council Treatment Plant Sites**

4.9 Council has set a level of service target of no odour complaints from its treatment plant sites.

4.10 Council received one complaint regarding odour from its Kaiapoi treatment plant site in February 2018 and therefore will not meet its level of service target for this quarter of the financial year.

4.11 This odour complaint came in the middle of an extended warm and dry period that caused excessive evaporation in the wetlands at the plant site. The water level in the wetlands dropped because of this evaporation, causing accumulated sludge around the edge of the wetlands to become exposed to air and become septic, generating offensive odours to the public in the area around the treatment plant.

4.12 Council has since raised the water level in the wetland to prevent the sludge from becoming septic. A project to remove accumulated sludge from the wetland is planned for later this financial year and will likely start in April 2018.

4.13 Council has received no other odour complaints regarding any of its wastewater infrastructure.

4.14 **Monitoring of Sea Foam Along the Beach Between Waimakariri River Mouth and Ocean Outfall**

4.15 Council has received some questions regarding whether there is a link between the ocean outfall system and the generation of sea foam along the beach between the Waimakariri River mouth and approximately 1km north of the ocean outfall.

4.16 Past efforts to test sea foam to determine if it was generated by the ocean outfall suggested that the sea foam was not related to Council’s ocean outfall.

4.17 Council has continued to monitor the beach in the vicinity of the outfall since the last time sea foam was present.

4.18 Beginning on 8th January, 2018, Council staff elevated the number of times per week that the beach is visited to monitor for the presence of foam. Council staff visit the beach 5 times weekly to monitor for foam and will continue to do so until mid-April.

4.19 To date, one instance of sea foam was witnessed on 15th January. Samples of this foam were collected and sent to ESR, a contractor to Council, for analysis.
4.20 Results of this analysis showed that there were slightly elevated levels of enterococci and E. Coli in the seawater tested and very elevated levels of enterococci and E. Coli in the Waimakariri River water tested. The test results are presented in the Table 1.

Table 1 – Test Results from Sea Foam Analysis

<table>
<thead>
<tr>
<th>Sample Number</th>
<th>Sample Location</th>
<th>E. Coli</th>
<th>Action Level*</th>
<th>Enterococci</th>
<th>Action Level*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>500m south of Ocean Outfall</td>
<td>13.3</td>
<td>550</td>
<td>62.5</td>
<td>280</td>
</tr>
<tr>
<td>2</td>
<td>1 km north of ocean outfall</td>
<td>10.7</td>
<td>550</td>
<td>42</td>
<td>280</td>
</tr>
<tr>
<td>3</td>
<td>1 km south of ocean outfall</td>
<td>13.3</td>
<td>550</td>
<td>55</td>
<td>280</td>
</tr>
<tr>
<td>4</td>
<td>Waimakariri River, upstream of Kaiapoi WWTP</td>
<td>194.3</td>
<td>550</td>
<td>213</td>
<td>280</td>
</tr>
</tbody>
</table>

* As established by Ministry for the Environment.

4.21 It is important to note that the levels of both enterococci and E. Coli in both the sea and river water were still well below action or alert levels as defined by the Ministry for the Environment.

4.22 Council staff will continue to engage members of the public that frequent the beach to alert us to the presence of sea foam.

4.23 Efforts to Minimize Risk of Avian Botulism Outbreak Occurring in the Future

4.24 For approximately 5 years, Council has experienced incidences of avian botulism at the Kaiapoi, Rangiora, and Woodend wastewater treatment plants.

4.25 Avian botulism is a disease that affects waterfowl, causing paralysis and eventual death. The disease affects birds in councils throughout New Zealand and other countries.

4.26 Cases of avian botulism have been predominantly concentrated at the Kaiapoi treatment plant but have also occurred at the Woodend and Rangiora wastewater treatment plant sites. Smaller numbers of affected birds have been discovered at other outlying Council sites, as well as at the Tutaepatu Lagoons in Pegasus.

4.27 In the current season, approximately 1,400 birds have been removed from Council plant sites as of 1st March 2018, with most of the bird deaths occurring at or near the Kaiapoi treatment plant site. For reference to past outbreaks of avian botulism, Council removed approximately 5,500 birds from treatment plant sites in 2015.

4.28 Council’s efforts at managing the effects of avian botulism have been to remove the carcasses of dead birds from treatment plant sites, thereby reducing the chance of spread of the disease to other birds. In the past, birds were removed two to three times a week. This is a best practice measure to minimize the impact of the disease.

4.29 Council has chosen to remove birds daily from the Kaiapoi site this year to better manage the disease and has continued every other day removals at the Rangiora and Woodend sites.

4.30 Council has sought advice from subject matter experts such as Keystone Ecology and the Department of Conservation and will continue to do so in an attempt to improve the management of the situation in future years.
4.31 Efforts to Determine the Source of Elevated Enterococci Levels in the Ocean Outfall

4.32 As part of its resource consent for the Ocean Outfall, Council is required to sample for the level of enterococci discharged into the marine environment.

4.33 Two consent conditions pertain to enterococci:

- The requirement for weekly sampling of the ocean outfall effluent, and
- The seasonal numerical limit for the level of enterococci present in the effluent.

4.34 The numerical limit for enterococci was not exceeded until February 2013 when the level of enterococci in the effluent spiked.

4.35 Since then, Council has commissioned a number of tests to determine the cause of elevated levels of enterococci.

4.36 Beginning in the week of 19th February, 2018, enterococci levels again spiked. Council staff have re-engaged ESR to begin the next phase of testing to determine the source of these elevated levels and to better understand options to prevent these spikes from occurring in future years.

4.37 To date in the 2018 financial year, Council has not breached its resource consent limit for enterococci; however, should levels remain elevated, a consent breach is possible. If a consent breach occurs, this will likely result in a minor non-compliance notification from Environment Canterbury.

5. ISSUES AND OPTIONS

5.1. The Management Team have reviewed this report and support the recommendations.

6. COMMUNITY VIEWS

Groups and Organisations

6.1. A concerned citizen in Kaiapoi has voiced concern to Council about wastewater treatment plant performance. Council staff have worked frequently with him to better understand his concerns and address them where possible.

Wider Community

6.2. The wider community has not been consulted on any of the items presented in this report.

7. IMPLICATIONS AND RISKS

Financial Implications

7.1. There may be additional financial implications due to some of the information presented in this report. The extent of those is unknown at this time.
7.2. There will be a staff submission in the range of $50,000 for the management of midges into the Long Term Plan process for the 2018/19 financial year.

Community Implications
7.3. The implications of the update presented in this report will be improved level of service, specifically around the generation of odours and midges from wastewater treatment plants.

Risk Management
7.4. If the management of wastewater treatment plants is not appropriately managed, the risk of complaints from the community and non-compliance with resource consents will increase.

Health and Safety
7.5. Detailed health and safety plans will be developed for each of these items when implementation of any recommendations begins.

8. CONTEXT

Policy
8.1 This matter is not a matter of significance in terms of the Council’s Significance and Engagement Policy.

Legislation

Community Outcomes
8.2 Council sewerage and water supply schemes, and drainage and waste collection services are provided to a high standard.

Delegations
8.3 Any decisions made as a result of this report are within the delegated authority of the Council.
24 January 2018

To: Chris Parton  
Wastewater Asset Manager  
Waimakariri District Council  
Private Bag 1005  
RANGIORA 7440I

Email: chris.parton@wmk.govt.nz

From: ESR Christchurch Science Centre  
PO Box 29181  
CHRISTCHURCH 8540

Email: paula.scholes@esr.cri.nz

REPORT ON BROWNISH-GREEN “SLIME” ANALYSIS

The following samples were received on 16th January 2018. They were labeled as being sampled from Pines Beach.

<table>
<thead>
<tr>
<th>ESR Number</th>
<th>Client Reference</th>
<th>Date / Time sampled</th>
<th>Site Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMB180025</td>
<td>001CP</td>
<td>15/01/2018, 1:15</td>
<td>sea water 500m S of outfall</td>
</tr>
<tr>
<td>CMB180026</td>
<td>003CP</td>
<td>15/01/2018, 1:45</td>
<td>sea water 1 km S of outfall</td>
</tr>
<tr>
<td>CMB180027</td>
<td>002CP</td>
<td>15/01/2018, 1:30</td>
<td>sea water 1 km N of outfall</td>
</tr>
<tr>
<td>CMB180028</td>
<td>004CP</td>
<td>15/01/2018, 2:00</td>
<td>Waimak Rv, west of Kaiapoi WWTP</td>
</tr>
<tr>
<td>CMB180029</td>
<td>001CP - sand</td>
<td>15/01/2018, 1:15</td>
<td>sand 500m S</td>
</tr>
<tr>
<td>CMB180030</td>
<td>003CP - sand</td>
<td>15/01/2018, 1:45</td>
<td>sand 1km S</td>
</tr>
</tbody>
</table>
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**Results of E. coli and Enterococci Analysis:**

<table>
<thead>
<tr>
<th>ESR Number</th>
<th>Client Reference</th>
<th>Description / Site ID</th>
<th>E. coli cfu / 100m or cfu / g dry weight</th>
<th>Enteroc cfu / 100m or cfu / g dry weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMB180025</td>
<td>001CP</td>
<td>sea water 500m S of outfall</td>
<td>13.3</td>
<td>62.5</td>
</tr>
<tr>
<td>CMB180029</td>
<td>001CP - sand</td>
<td>sand 500m S</td>
<td>0.44</td>
<td>160.7</td>
</tr>
<tr>
<td>CMB180026</td>
<td>003CP</td>
<td>sea water 1 km S of outfall</td>
<td>13.3</td>
<td>55</td>
</tr>
<tr>
<td>CMB180030</td>
<td>003CP - sand</td>
<td>sand 1km S</td>
<td>0.25</td>
<td>40.9</td>
</tr>
<tr>
<td>CMB180027</td>
<td>002CP</td>
<td>sea water 1 km N of outfall</td>
<td>10.7</td>
<td>42</td>
</tr>
<tr>
<td>CMB180031</td>
<td>002CP - sand</td>
<td>sand 1km N</td>
<td>0.6</td>
<td>32.7</td>
</tr>
<tr>
<td>CMB180028</td>
<td>004CP</td>
<td>Waimak Rv, west of Kaiapoi WWTP</td>
<td>194.3</td>
<td>213</td>
</tr>
</tbody>
</table>
Discussion:

These samples were taken in response to the presence of brownish-green “slime” on the beach near the WWTP outfall (refer photo).

All the beach water results are less that the alert level for marine water. The results from the Waimakariri River sample are higher, but still less than the “unsuitable for swimming” guidelines.

Notes:
Brief details of the methods of analysis are available on request. These results relate to samples as received. This report may not be reproduced except in full.

Paula Scholes
Laboratory Operations Coordinator
1. SUMMARY

1.1 This report is to inform the Utilities and Roading Committee on progress with consultation for the Poyntzs Road source upgrade project, and seek approval on the proposed way forward.

1.2 It was originally intended that in order to progress the Poyntzs Road source upgrade project, staff would consult with the West Eyreton and Summerhill water supply advisory groups, prior to meeting with the relevant community boards in February 2018 then consulting with the wider communities in March 2018.

1.3 At a meeting with the advisory groups on the 7th of February 2018 the advisory groups raised some concerns with the funding options presented, and the subsequent reports to the community boards were withdrawn until these issues could be addressed. In the meantime however consultation on the draft 2018-28 Long Term Plan has commenced which includes allowance for this project.

1.4 This has raised an issue in that consultation will be undertaken on the Long Term Plan, which includes the budget for the Poyntzs Road source upgrade, while the required targeted consultation with the water supply advisory groups, the two community boards and the wider communities has not been able to be completed.

1.5 It is proposed as a solution to this issue of timing that the Utilities and Roading Committee resolve that staff will not commence implementation of the solution until the required consultation has taken place, but the that the budget is recommended to remain in the 2018/19 financial year.

Attachments:
Nil.

2. RECOMMENDATION

THAT the Utilities and Roading Committee recommends:
THAT the Council:

(a) Receives report No. 180305022630.

(b) Notes that staff have not been able to complete the required community consultation with the Poyntzs Road, West Eyreton and Summerhill water supply schemes regarding the proposed Poyntzs Road source upgrade prior to or to coincide with the draft 2018-28 Long Term Plan consultation.

(c) Notes that the budget allowance of $793,000 for the Poyntzs Road scheme source upgrade in the 2018/19 financial has been included for consultation as part of the draft 2018-28 Long Term Plan.

(d) Resolves that the physical works that this budget is intended for will not be implemented until Council has specifically approved this occurring, following consultation with the relevant advisory groups, community boards and communities.

(e) Notes that this strategy will give staff the required time to undertake the necessary consultation, without requiring that the project be delayed for an unnecessarily long period of time.

(f) Notes that the significant rating implication of the proposed expenditure does not eventuate until the 2019/20 financial year, by which time targeted consultation will have been completed.

(g) Circulates this report to the Oxford-Ohoka and Rangiora Ashley Community Boards for their information.

3. BACKGROUND

3.1. On the 5th of September 2017 the Council endorsed the preferred option for upgrading the Poyntzs Road scheme by connecting it with the West Eyreton scheme, and approved staff to consult with residents along the potential pipe routes to help inform the rates projections prior to wider community consultation (refer to report 170816088611).

3.2. It was intended that staff would then consult with the West Eyreton and Summerhill water supply advisory groups, prior to meeting with the relevant community boards in February 2018 then consulting with the wider communities in March 2018.

3.3. At a meeting with the advisory groups on the 7th of February 2018 there were some concerns raised regarding the funding options presented. For this reason reports to the community boards were withdrawn until staff could undertake further analysis of options before reporting back to the advisory groups, and then to the boards.

3.4. In the meantime staff have been preparing for consultation based on the draft 2018-28 Long Term Plan. This includes budgets allowance in the 2018/19 financial year to implement the proposed source upgrade option of joining the Poyntzs Road scheme with the West Eyreton scheme (which is also the source for the Summerhill scheme).

4. ISSUES AND OPTIONS

4.1. Based on the points noted in Section 3, an issue has been raised in that consultation will be undertaken on the Long Term Plan, which includes the budget for the Poyntzs Road source upgrade while the required targeted consultation with the water supply advisory groups, the two community boards and the wider communities has not been able to be completed.
4.2. Ideally prior to the draft Long Term Plan consultation staff would have been able to present options to the water supply advisory groups and the community boards that they would have approved feeding into consultation material for the wider community. This would have allowed targeted consultation with the communities to have taken place prior to or in conjunction with the draft Long Term Plan consultation.

4.3. It is proposed as a solution to this issue of timing that the Utilities and Roading Committee resolve that staff will not commence implementation of the solution until the required consultation has taken place, but that the budget remain in the 2018/19 financial year.

4.4. This will allow staff the necessary time to undertake consultation with the seven key stakeholders (West Eyreton Water Supply Advisory Group, Summerhill Water Supply Advisory Group, Oxford-Ohoka Community Board, Rangiora-Ashley Community Board and the three respective water supply schemes) with the necessary time to allow feedback to be heard and considered, while still allowing financially for the works to occur once consultation is complete.

4.5. The approximate revised timeframe for this project is as per the table below:

<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
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<tr>
<td>Workshop Funding Options with Water Supply Advisory Groups</td>
<td>April – May 2018</td>
</tr>
<tr>
<td>Detailed Design</td>
<td>May – September 2018</td>
</tr>
<tr>
<td>Meet with Oxford-Ohoka and Rangiora-Ashley Community Boards regarding commencing consultation</td>
<td>June 2018</td>
</tr>
<tr>
<td>Council Approve Consultation Commencing</td>
<td>June 2018</td>
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<tr>
<td>Consultation with Communities</td>
<td>July – August 2018</td>
</tr>
<tr>
<td>Council Decision and Approval to Proceed with Recommended Option</td>
<td>October 2018</td>
</tr>
<tr>
<td>Tendering of Physical Works</td>
<td>October - November 2018</td>
</tr>
<tr>
<td>Award of Construction Contract</td>
<td>November / December 2018</td>
</tr>
<tr>
<td>Construction of Physical Works</td>
<td>January – June 2019</td>
</tr>
</tbody>
</table>

*subject to agreement being reached with community boards, advisory groups and community.

4.6. The Management Team have reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Groups and Organisations

5.2. As is noted in Section 4, consultation with the West Eyreton and Summerhill Water Supply Advisory Groups and the Oxford-Ohoka and Rangiora-Ashley Community Boards is required to be undertaken. Initial meetings with all parties was undertaken in 2017, and with the advisory groups in February 2018.

5.3. Wider Community

5.4. The consultation with the four parties noted above is required to be undertaken prior to engagement with the Poyntzs Road, West Eyreton and Summerhill communities.

5.5. Initial consultation has been undertaken with residents along potential pipe routes for the proposed pipe between West Eyreton and Poyntzs Road. This was to help inform staff of the viability of both routes as well as inform rating impact assessments that is required for the next stage of consultation.
6. IMPLICATIONS AND RISKS

6.1. Financial Implications

6.2. A capital budget of $50,000 in the 2017/18 financial year and $793,000 in the 2018/19 financial year has been allowed as part of the draft 2018-28 Long Term Plan.

6.3. These budgets result in rating projections increasing from $573 per 2 unit connection in 2017/18 to $1,800 per 2 unit connection in 2022/23. Similarly increases for 19 unit connections are projected from $1,083 in 2017/18 to 3,517 in 2022/23.

6.4. As part of this project staff will consider whether this increase can be phased in to smooth the initial impact.

6.5. The above rating projections do not allow for a capital contribution from the Poyntzs Road scheme to the West Eyreton and Summerhill schemes as part of joining. This is one of the funding options proposed to be consulted on following discussions with the Water Supply Advisory Groups, which would increase Poyntzs Road rates further while causing a reduction in West Eyreton and Summerhill rates.

6.6. If the preferred funding option involves a capital contribution from Poyntzs Road, the rating increases to Poyntzs Road may be greater than currently signalled in the draft Long Term Plan. This is a challenge with the draft Long Term Plan being prepared while there are still several funding options being considered for a given project, and will need to be addressed as part of the targeted consultation.

6.7. Community Implications

6.8. There is a risk that these increases projected for Poyntzs Road may result in questions of financial affordability of rates. This will need to be addressed as part of the consultative process.

6.9. Alternatively, if no contribution is made from Poyntzs Road to West Eyreton and Summerhill, this may raise questions of fairness and inconsistency as the Summerhill scheme previously made a contribution to West Eyreton as part of joining.

6.10. Risk Management

6.11. The Poyntzs Road scheme does not meet the current Drinking Water Standards in terms of treatment of protozoa, as well as having nitrate levels increasing towards the maximum acceptable value.

6.12. The Water Safety Plan for the scheme states that the source will have been upgraded during the 2016/17 financial year which has not occurred. There is a risk if there are undue delays to the project Council may not meet its obligations under the Health (Drinking Water) Amendment Act to take all practicable steps to comply with the Drinking Water Standards for New Zealand.

6.13. To address the risks noted, a balance is required to be found between addressing the health risk presented by the scheme, the need to consult appropriately, and managing the financial implications of the proposed upgrade.

6.15. Given that the scheme does not comply with the current drinking water standards, it is
deemed to present a health risk in particular in terms of protozoa as well as there being a
risk of nitrate levels becoming an issue in the future.

7. CONTEXT

7.1. Policy

7.2. This matter is not a matter of significance in terms of the Council’s Significance and
Engagement Policy. It is however acknowledged that this project is forecast to result in
significant rating increases to the residents on the Poyntzs Road scheme. As such it is
proposed that the consultation be carried out in line with the special consultative procedure
despite this project not triggering the Council’s Significance and Engagement Policy.

7.3. Legislation

7.4. Section 69 of the Health (Drinking Water) Amendment Act 2007 is relevant in this matter.

7.5. Community Outcomes

7.6. The following community outcomes are relevant in this matter:

- There are wide ranging opportunities for people to contribute to the decision
  making that affects our District
- There is a safe environment for all
- Core utility services are provided in a timely and sustainable manner
- People have wide-ranging opportunities for learning and being informed

7.7. Delegations

7.8. This report does not require any financial delegation to approve.
**SUMMARY**

1. The purpose of this report is to seek approval from the Rangiora Ashley Community Board for the installation of two pedestrian refuge crossings on White Street at the intersection with Kingsbury Avenue and on Ashgrove Street at the intersection with Kingsbury Avenue.

2. Requests have been received from students and parents from Ashgrove School concerning safer crossing points. Some of these have already been addressed, e.g. Kingsbury Avenue pedestrian refuge installed 2016.

3. A school travel survey undertaken by 190 of the parents/caregivers of students from Ashgrove School in mid 2017 showed while there is a fairly good level of active travel by students to and from school, that safer crossing points were a factor in the decision whether to let their child walk, scooter or cycle.

4. An assessment of the most common roads in the school environs which are used by students in their school journey including feedback from parents and from the survey results has indicated that pedestrian refuges in White Street and Ashgrove Street would assist in making student’s journey to school safer and may therefore encourage an increase in active modes of travel for journeys to and from school.

5. Some respondents to the survey (24%) cited ‘dangerous roads as a reason they did not allow their children to walk, cycle or scooter to school. Parents were also asked what might encourage them to allow their children to walk, cycle or scooter. Around 40% of responses indicated ‘safer crossing points’ were a factor.

6. The Council Walking & Cycling Strategy’s Vision is that Waimakariri residents choose to walk and cycle and the environment is friendly, safe and accessible for walkers and cyclists.

7. The Council Road Safety Action Plan includes vulnerable road users as an area of concern and includes an activity to conduct an audit of school safety signage/environments to maximise safety.
Attachments:

i. Map of area showing existing and potential crossing refuge points (Doc 171201130559)

ii. Most recent traffic counts relative to pedestrian refuge crossings requested (Doc 171201130552)

RECOMMENDATION

THAT the Rangiora Ashley Community Board:

(a) Receives report No 171201130547.

(b) Approves the installation of

- A pedestrian refuge island on Ashgrove Street at the intersection with Kingsbury Avenue;
- A pedestrian refuge island on White Street at the intersection with Kingsbury Avenue,

as shown on the attached document (Trim No. 171201130559).

(c) Circulates this report to the Utilities and Roading Committee.

2. ISSUES AND OPTIONS

2.1. From time to time Council receives requests for pedestrian refuge crossings in particular areas, many of which relate to vulnerable road users such as school children and/or the elderly using the environs.

2.2. In mid-2017, a Travel Survey was carried out with Ashgrove School parents to look at the number of children walking, cycling and scooting to school and what barriers there were for those children who were not. The survey showed around 60% of children of those who responded (190) travel to or from school in a vehicle but there is also a good proportion who walk, cycle or scooter some or all of the journey. Ashgrove has a roll of around 520.

2.3. However, some respondents to the survey (24%) cited ‘dangerous roads as a reason they did not allow their children to walk, cycle or scooter to school. Parents were also asked what might encourage them to allow their children to walk, cycle or scooter. Around 40% of responses indicated ‘safer crossing points’ were a factor.
2.4. Feedback from the survey identified the roads that were most frequently crossed by children on their journey to and from school. While not identifying the exact location, the roads identified as most used were West Belt, Ashgrove, Seddon Street, White Street, Kinley Street and Kingsbury Avenue.

2.5. While there are other reasons parents and caregivers choose to not allow active travel to school by children, providing infrastructure that mitigates safety concerns is one factor in the school travel planning process in achieving a greater uptake of active travel.

2.6 Traffic counts in the area show around 200 vehicle movements per hour in the peak times near Ashgrove/Kingsbury Street intersection and over 100 in the White/Kingsbury Street intersection.

2.7 Young children cannot accurately judge the speed and distance of approaching vehicles and tend to be far-sighted and have difficulty with side vision, so creating pedestrian refuges means they only have to navigate one lane of the roadway at a time.

2.8 A pedestrian refuge will also assist to narrow the road lanes slowing traffic in an area where vulnerable pedestrians are.

2.7 The Walking & Cycling Strategy's Vision is that Waimakariri residents choose to walk and cycle and the environment is friendly, safe and accessible for walkers and cyclists.

2.8 The Council Road Safety Action Plan includes vulnerable road users as an area of concern and includes an activity to conduct an audit of school safety signage/environments to maximise safety.

2.9 The Transport Agency's Safer Journeys for Schools guide highlights that efforts should be made to ensure key routes to school have sufficiently usable and safe infrastructure for active modes, where broadly feasible.

2.10 Pedestrians are more susceptible to serious injury in the event of a crash. With their limited abilities and lack of experience, children are among the most vulnerable of pedestrians. Their abilities will also vary according to their age, with children less than eight years old being the most vulnerable.

2.11 Council will continue to work with the school to promote road safety in the area and also look at other measures to encourage active travel.

2.12 The Management Team has reviewed this report and supports the recommendations.

3. THE COMMUNITY VIEWS

3.1 Requests have been received from students and parents from Ashgrove School concerning safer crossing points. Some of these have already been addressed, e.g. Kingsbury Avenue pedestrian refuge installed 2016.

3.2 The Principal of Ashgrove School, Christine Chadwick is keen to see an increase in the number of children choosing active travel for their journeys to and from school and believes safer crossing points will assist this.

3.3 Feedback received as part of the Council’s 2017 Walking & Cycling Strategy Review survey showed that concerns about safety are the main reasons parents or caregivers do not want children biking or walking to school or other activities.
3.4 When asked in the Walking & Cycling Strategy survey, ‘what would encourage children to walk more often’ the feedback highlighted safe crossing points.

3.5 The improvements that were most prevalent in the feedback and suggested to encourage more children to walk or bike to school were mainly around more dedicated cycle and walking paths, improved crossing points and lower traffic speeds particularly around rural schools.

3.3 The Council Road Safety Action Plan 2017-18 includes a goal of reducing the number of fatal and serious crashes involving vulnerable road users as a priority.

4. **FINANCIAL IMPLICATIONS AND RISK**

4.1 All costs associated with installing these signs can be met with existing budgets.

4.2 There are no significant risks associated with installing the pedestrian refuges.

5. **CONTEXT**

5.1 **Links to Community Outcomes**

5.1.1 There is a safe environment for all:

- Crime, Injury and road accidents are minimised
- Harm to people from natural and manmade hazards is minimised

5.1.2 Transport is accessible, convenient, reliable, affordable and sustainable

- The standard of our District’s roads is keeping pace with increasing traffic numbers

Kathy Graham
Journey Planner/Road Safety Co-ordinator
Report to Rangiora-Ashley Community Board regarding approval for pedestrian refuges on Ashgrove Street and White Street at the intersection with Kingsbury Street. Report CMS-06-03-171201130547 refers.

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WAIMAKARIRI DISTRICT COUNCIL

REPORT

FILE NO and TRIM NO: SEW-03-01-01-64 / 180208012505

REPORT TO: Management Team

DATE OF MEETING: 26 February 2018

FROM: Chris Parton, Wastewater Asset Manager

SUBJECT: Request Authorization for Direct Engagement of Kauri Park Nurseries

SIGNED BY: ________________________________________  ________________________________________
Department Manager  Chief Executive

1. SUMMARY

1.1. The purpose of this report is to seek approval from Management Team to engage Kauri Park Nurseries to provide and install plants and protective fencing for the wetlands at the Kaiapoi and Woodend wastewater treatment plants (WWTP).

1.2. This project is the second in a series of projects to remove and replace the existing plants in the constructed wetland cells at the Woodend and Kaiapoi WWTP. A trial planting at the Woodend WWTP was successfully completed in the 2015/2016 financial year.

1.3. Kauri Park Nurseries are the leading supplier of wetland-specific plants in New Zealand and are recognized as a specialist contractor for this type of work. They supplied and installed the plants for the previous wetland re-planting efforts at the Woodend WWTP, and those plants have performed well since planting.

1.4. The budgets for the projects are $70,000 for Woodend and $110,000 for Kaiapoi. Kauri Park has provided quotes of $26,807 and $52,847 for the Woodend and Kaiapoi sites, respectively. These quotes are well within the budget for each project and provide good value to Waimakariri District Council.

Attachments

I. Figures 3 & 4 - Quotes from Kauri Park Nurseries
II. Figures 5 & 6 - Plan sheets of work to be performed at Woodend and Kaiapoi plant sites

2. RECOMMENDATION

THAT the Management Team:

(a) Receives report No. 180208012505.

(b) Approves the engagement of Kauri Park Nurseries for $79,654 to provide plants and protective netting for the Kaiapoi and Woodend wetland planting projects.
3. ISSUES AND OPTIONS

3.1. The initial plantings of the constructed wetlands at the Kaiapoi and Woodend wastewater treatment plants in 2007 did not perform as expected. In particular, two of the three species of plants have experienced almost complete dieback from the initial plantings.

3.2. A review of the wetlands was performed by Opus International in 2012. This review determined that the initial planting used plants from a local supplier and that these plants were not suitable for a wetland environment. It was recommended that the plants be removed and replaced with plants that are suitable for a wetland environment.

3.3. Based on the recommendation from Opus International, a trial planting was undertaken in wetland cell 1A at the Woodend wastewater treatment plant in the 2015/16 financial year. The existing plants were removed and replaced with three species that are suitable for wetlands. Kauri Park Nurseries performed this work and have since completed similar projects for councils across New Zealand. They are recognized as a specialist contractor for this type of work in New Zealand.

3.4. The trial project at the Woodend plant was viewed as a success, so a program to remove and replace the existing plants in all wetland cells at the Woodend and Kaiapoi plants was developed and placed in the budget for each scheme. There are two cells to replant at the Kaiapoi plant and three cells to replant at the Woodend plant, resulting in a two year program at Kaiapoi and three year program at Woodend. The programs for the Kaiapoi and Woodend plants are shown on Figures 1 and 2, respectively.

3.5. Given that Kauri Park Nurseries successfully completed the trial project at the Woodend plant, they were asked to provide a proposal to supply and place the plants for the work programmed for this financial year. Their proposal for each plant site is attached and is well within the budget to perform the work.

3.6. Based on Kauri Park Nurseries’ past experience with this type of work and in particular with Waimakaniri District Council, it is recommended that the Council engages them directly to supply and place the plants for the Woodend and Kaiapoi sites.

4. COMMUNITY VIEWS

4.1. The community has not been consulted about this specific item of the project; however, they were consulted on the overall concept of the project through the long term plan development.

5. FINANCIAL IMPLICATIONS AND RISKS

There is a very small risk that, after the two-year warranty period expires, the new plants will experience die back and that Council will have to replace those plants. Wastewater
customers would bear the expense of replanting if it occurs. Since the rate of dieback in the trial planting was very minor, the risk of extensive dieback and subsequent replanting is viewed as very minor as well.
Figure 1 – Kaiapoi Wetland Planting Program
6. **CONTEXT**

6.1. **Policy**

This matter is not a matter of significance in terms of the Council’s Significance Policy.

6.2. Council’s purchasing policy requires three quotes or competitive tender for any physical works over $20,000 or management team approval; however, for the following reasons it is recommended that this work not be tendered but that Council instead engages Kauri Park Nurseries directly.

- This is specialist work that Kauri Park Nurseries has extensive experience in completing, both for Waimakariri District Council and other councils in New Zealand.

- Kauri Park Nurseries successfully completed the first wetland planting at the Woodend wastewater treatment plant.

- There is a history of plant dieback and failures from previous plant installations where improper plants were used. That will not be the case for this installation.

6.3. **Legislation**

There is no legislation requiring this work to be completed; however, the renewal of the wetland plants with appropriate plant species will provide an enhanced level of treatment through both the Woodend and Kaiapoi plants, removing greater levels of suspended solids, reducing faecal bacteria counts, and reducing the amount of nitrates leaving the wetlands.

6.4. **Community Outcomes**

This report relates to the following community outcomes:

- Core utility services are provided in a timely, sustainable and affordable manner.
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This Quotation is eligible for 0190 loyalty points!
(See: http://www.kauriparknurseries.co.nz/us/rewards-program/ for more details)

- Prices subject to availability.
- Prices exclusive of GST and freight.
- Quotation valid for 30 days.

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Kauri Park Nurseries Ltd
State Highway 1
Kaiwaka North
Northland
Phone (09) 431-2125 Fax (09) 431-2894
GST No. 89-216-249

Figure 3 – Kaiapoi Wetland Plant Quote
Figure 4 – Woodend Wetland Quote

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This Quotation is eligible for 4660 loyalty points!
(See: http://www.kauriparknurseries.co.nz/au/rewards-program/ for more details)

Total QTY: 12,600

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KAURI PARK NURSERIES LTD
State Highway 1
Kaiwaka North
Northland
Phone (09) 431-2125 Fax (09) 431-2894
GST No. 89-216-249
Figure 3 – Kaiapoi Wetland Drawing
Figure 4 – Woodend Wetland Drawing