



chatham islands council

Chatham Islands Council

BOARD PACK

for

2 May 2024 Council Meeting

Thursday, 2 May 2024

9:00 am (+1245)

Held at:

Chatham Islands Council

13 Tuku Road, Chatham Islands

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AGENDA

2 MAY 2024 COUNCIL MEETING



| | |
|-----------------------|---|
| Name: | Chatham Islands Council |
| Date: | Thursday, 2 May 2024 |
| Time: | 9:00 am to 11:00 am (+1245) |
| Location: | Chatham Islands Council, 13 Tuku Road, Chatham Islands |
| Board Members: | Cr Amanda Seymour, Cr Celine Gregory-Hunt, Cr Graeme Hoare, Cr Greg Horler, Cr Judy Kamo, Cr Keri Day, Mayor Monique Croon, Cr Nigel Ryan, Cr Steve Joyce |
| Attendees: | Mr Andrew Wong, Ms Colette Peni, Ms Jo Guise, Ms Kirsten Norquay, Ms Mereraina Hemara, Mr Nigel Lister, Paul Eagle, Mr Phil Holt, Ms Tanya Clifford |

1. Opening Meeting

1.1 Apologies

1.2 Interests Register

Review and update the interests register of board members and key executives.

Supporting Documents:

| | | |
|-------|--------------------|---|
| 1.2.a | Interests Register | 8 |
|-------|--------------------|---|

1.3 Action List

Review the progress of action items from previous meetings and discuss any pending tasks.

Supporting Documents:

| | | |
|-------|-------------|---|
| 1.3.a | Action List | 9 |
|-------|-------------|---|

1.4 CE Report

To updated elected members on the Chief Executives activities.

2. Confirmation of Minutes

2.1 Minutes 14 March 2024

Review and confirm the minutes of the previous meeting.

Supporting Documents:

| | | |
|-------|--|----|
| 2.1.a | 2.1 Minutes 14 March 2024.docx | 10 |
| 2.1.b | 14 Mar 2024 Minutes in Review.pdf | 11 |
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2.2 Representation Review

For Decision

Supporting Documents:

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2.3 Kahui Manu Tāiko Minutes

For information

Supporting Documents:

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|-------|---|----|
| 2.3.a | 2.3 Minutes from Kāhui Manu Tāiko.docx | 32 |
| 2.3.b | Minutes Kahui Manu Taiko - 12 February 2024.pdf | 33 |
| 2.3.c | Minutes Kahui Manu Taiko - 15 March 2024.docx | 37 |

3. Finance

3.1 Financial Report

Ms Tanya Clifford

Information to be received.

Supporting Documents:

| | | |
|-------|---------------------------|----|
| 3.1.a | 3.1 Financial Report .pdf | 42 |
|-------|---------------------------|----|

3.2 LTP 2024-34 Consultation Document

For Council to adopt the Consultation Document (CD) and the supporting information held within the draft Long-Term Plan 2024-34.

Supporting Documents:

| | | |
|-------|--|----|
| 3.2.a | 3.2 CIC LTP CD adoption agenda item 2024.pdf | 46 |
| 3.2.b | CIC9636 CD for proposed LTP 24-34 PROOF Draft v3.pdf | 48 |
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4. Works & Services

4.1 Stantec Report

Information to be received.

Supporting Documents:

| | | |
|-------|-------------------------|-----|
| 4.1.a | 4.1 Stantec Report1.pdf | 199 |
|-------|-------------------------|-----|

4.2 Fulton Hogan Road Maintenance Report

Information to be received.

Supporting Documents:

| | | |
|-------|---|-----|
| 4.2.a | 4.2 Fulton Hogan Road Maintenance Report .pdf | 209 |
|-------|---|-----|

4.3 Fulton Hogan Water & Wastewater Report

Information to be received.

Supporting Documents:

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|-------|---|-----|
| 4.3.a | 4.3 Fulton Hogan Water & Wastewater Contract .pdf | 225 |
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4.4 Fulton Hogan Waste Management Report

Information to be received.

Supporting Documents:

| | | |
|-------|------------------------------------|-----|
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|-------|------------------------------------|-----|

4.5 Owenga Landfill Annual Monitoring Report

To update Council on the performance of the Owenga Landfill.

Supporting Documents:

| | | |
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| 4.5.a | 4.5 Owenga Landfill Annual Monitoring Report.pdf | 240 |
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4.6 Bridge Inspection Report

Information paper for Council.

Supporting Documents:

| | | |
|-------|--|-----|
| 4.6.a | 4.6 CIC 2023-24 Bridge Inspection Report.pdf | 300 |
|-------|--|-----|

5. Community

6. Regulatory

6.1 Decision Resource Consent CIC/2024/001 Chatham Islands Council

The decision of Sharon McGarry, Independent Commissioner, appointed by Chatham Islands Council to decide the application by Chatham Islands Council to erect a barge loading facility adjacent to the Owenga Wharf, Owenga, Chatham Island.

Supporting Documents:

| | | |
|-------|---|-----|
| 6.1.a | 6.1 Decision Resource Consent CIC-2024-001.pdf | 390 |
| 6.1.b | Owenga Wharf ramp consent Letter.pdf | 391 |
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7. Emergency Management

8. Government

9. Chatham Islands

10. Public Excluded

10.1 Move to Public Excluded

10.2 Public Excluded Agenda

Supporting Documents:

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|--|-----|
| 10.2.a PE Cover Page 1 February 2024.pdf | 416 |
|--|-----|

10.3 PE.1 Minutes 14 March 2024

For Approval

Supporting Documents:

| | |
|---|-----|
| 10.3.a PE.1 PE Minutes 14 December 2023.pdf | 417 |
|---|-----|

10.4 Chatham Islands Housing Partnership Trust Update

Information paper for Council.

Supporting Documents:

| | |
|--------------------------------|-----|
| 10.4.a PE 2. CIHPT Update.docx | 421 |
|--------------------------------|-----|

| | |
|--------------------------|-----|
| 10.4.b CIHPT Update.pptx | 422 |
|--------------------------|-----|

10.5 Close the meeting

9:00 am

Next meeting: Council Meeting - 6 Jun 2024, 9:00 am

Summarize the key decisions made and officially close the board meeting.

Interests Register

Chatham Islands Council



As of: 29 Apr 2024

| Person | Organisation | Active Interests | Notice Date |
|----------------------------|-------------------------|---|-------------|
| Cr Keri Day | Chatham Islands Council | Interested party - Item 7.1 Water Tank Project Update | 1 Feb 2024 |
| Cr Steve Joyce | Chatham Islands Council | Director, Chatham islands Electricity Ltd - 6.1 Wind Turbines | 14 Mar 2024 |
| Mayor Monique Croon | Chatham Islands Council | Applicant in Item 6.2 - M Croon Subdivision | 1 Feb 2024 |

Action List

Chatham Islands Council



As of: 29 Apr 2024

Water Tank Project Update - For Info Sharing Workshop

In Progress

1. Re-look at contract to understand the specifics around dates.
2. Look into items stated as stolen from hall.

Due Date: 24 Apr 2024

Owner: Paul Eagle

Meeting: 1 Feb 2024 Council Meeting 1 February 2024, 6.1 Water Tank Project Update

Cost of Visitor Accommodation - For Info Sharing Workshop

In Progress

Find out the cost of Visitor Accommodation for Council contractors and visitors

Due Date: 24 Apr 2024

Owner: Paul Eagle

Meeting: 1 Feb 2024 Council Meeting 1 February 2024, 2.2 Chief Executive Report

5.1 Waitangi Hall

Not Started

SEEK legal advice for any liabilities in terms of handing over the Hall in its current condition.

Due Date: 2 May 2024

Owner: Paul Eagle

Meeting: 14 Mar 2024 14 March Council Meeting, 5.1 Waitangi Hall Decision

5.1 Waitangi Hall

Not Started

Subject to favourable legal advice -

SEEK expressions of interest for the following by 30 June 2024 – subject to favourable legal advice:

- Legal structure for transferring the ownership of the Hall (building, not land)
- Business Plan
- Plan to upgrade the Hall to a fully compliant standard
- Financial plan to enable the upgrade, one off set-up costs, day to day management, and maintenance (including depreciation)
- Timeline for implementation

Due Date: 2 May 2024

Owner: Paul Eagle

Meeting: 14 Mar 2024 14 March Council Meeting, 5.1 Waitangi Hall Decision



2. Democracy

2.1 Minutes of an Ordinary Meeting 14 March 2024

| | |
|---------------------------|-------------------------------|
| Date of meeting | 2 May 2024 |
| Agenda item number | 2.1 |
| Author/s | Jo Guise, Executive Assistant |

Purpose

For the Council to receive and confirm the minutes of the Ordinary Meeting of Council held on 14 March 2024.

Recommendations

1. **THAT the minutes from the Special meeting of the Chatham Islands Council held on 14 March 2024 be a true and accurate record.**

MINUTES (in Review)

14 MARCH 2024 COUNCIL MEETING



| | |
|-----------------------|--|
| Name: | Chatham Islands Council |
| Date: | Thursday, 14 March 2024 |
| Time: | 9:00 am to 10:08 am (NZDT) |
| Location: | 13 Tuku Road, Chatham Islands Territory, New Zealand |
| Board Members: | Mayor Monique Croon, Cr Keri Day, Cr Greg Horler, Cr Steve Joyce, Cr Nigel Ryan, Cr Amanda Seymour, Cr Graeme Hoare, Cr Judy Kamo |
| Attendees: | Mr Erin Von Elders, Ms Tanya Clifford, Mr Nigel Lister, Ms Rebecca Tinga, Ms Mereraina Hemara, Mr Paul Eagle, Ms Colette Peni, Ms Jo Guise |
| Apologies: | Cr Celine Gregory-Hunt |
| Notes: | Cr Nigel Ryan joined the meeting at 9.26am. |

1. Opening Meeting

1.1 Apologies



THAT the apologies be accepted

Decision Date: 14 Mar 2024
Mover: Cr Steve Joyce
Seconder: Cr Judy Kamo

1.2 Interests Register

1.3 Action List

| Due Date | Action Title | Owner |
|-------------|---|---------------|
| 23 Apr 2024 | Water Tank Project Update - For Info Sharing Workshop Status: In Progress | Mr Paul Eagle |
| 24 Apr 2024 | Cost of Visitor Accommodation - For Info Sharing Workshop Status: In Progress | Mr Paul Eagle |

1.4 CE Report



1.3 Chief Executive Report

THAT the Chatham Islands Council:

1. RECEIVE the report.

Decision Date: 14 Mar 2024
Mover: Cr Keri Day
Seconder: Cr Graeme Hoare

2. Confirmation of Minutes

2.1 Confirm Minutes 1 February 2024



THAT the minutes from the meeting held on 1 February 2024 be a true and accurate record.

Decision Date: 14 Mar 2024
Mover: Cr Amanda Seymour
Seconded: Cr Keri Day
Outcome: Approved

2.2 Minutes Special Meeting 8 February 2024



THAT the minutes from the Special meeting of the Chatham Islands Council held on 8 February be a true and accurate record.

Decision Date: 14 Mar 2024
Mover: Cr Amanda Seymour
Seconded: Cr Greg Horler
Outcome: Approved

3. Finance

3.1 Financial Report



Financial Report to January 2024

THAT the Financial Report to January 2024 be received.

Decision Date: 14 Mar 2024
Mover: Cr Judy Kamo
Seconded: Cr Graeme Hoare

Ms Tanya Clifford was in attendance via Zoom and spoke to her report.

4. Works & Services

4.1 Stantec Report



Stantec Engineering Report - February 2024

THAT the report be received.

Decision Date: 14 Mar 2024
Mover: Cr Graeme Hoare
Seconded: Cr Amanda Seymour

Mr Nigel Lister and Ms Rebecca Tinga spoke to the report.

4.2 Fulton Hogan Road maintenance Report



Fulton Hogan Road Maintenance Report January 2024

THAT the report be received and acknowledgement noted.

Decision Date: 14 Mar 2024
Mover: Cr Steve Joyce
Seconded: Cr Graeme Hoare

Mr Erin Von Elders gave an update to the report. He advised Phil Holt and his family were leaving the island, and a new Manager would be appointed in due course.

Mayor Croon acknowledged the work of Phil Holt and Liz Carpe during their time on the island.

4.3 Fulton Hogan Water & Wastewater Report



Fulton Hogan Water and Wastewater report January 2024

THAT the report be received.

Decision Date: 14 Mar 2024
Mover: Cr Graeme Hoare
Seconded: Cr Judy Kamo

Mr Erin Von Elders gave an update to the report.

4.4 Fulton Hogan Waste Management Report



Fulton Hogan Waste Management Report January 2024

THAT the report be received.

Decision Date: 14 Mar 2024
Mover: Cr Keri Day
Seconded: Cr Graeme Hoare

4.5 LATE ITEM - 30-Year Programme Prioritisation



THAT the report '30-Year Programme Prioritisation' be considered as a late item.

Decision Date: 14 Mar 2024
Mover: Cr Graeme Hoare
Seconded: Cr Keri Day



4.5 30-Year Programme Prioritisation

THAT the programme priorities be ratified.

Decision Date: 14 Mar 2024
Mover: Cr Amanda Seymour
Seconded: Cr Graeme Hoare
Outcome: Approved

5. Community

5.1 Waitangi Hall Decision



THAT the Chatham Islands Council:

1. **SEEK** legal advice for any liabilities in terms of handing over the Hall in its current condition.
2. **SEEK** expressions of interest for the following by 30 June 2024 – subject to favourable legal advice:
 - Legal structure for transferring the ownership of the Hall (building, not land)
 - Business Plan
 - Plan to upgrade the Hall to a fully compliant standard
 - Financial plan to enable the upgrade, one off set-up costs, day to day management, and maintenance (including depreciation)
 - Timeline for implementation

Decision Date: 14 Mar 2024
Mover: Cr Nigel Ryan
Seconder: Cr Graeme Hoare
Outcome: Approved



5.1 Waitangi Hall

SEEK legal advice for any liabilities in terms of handing over the Hall in its current condition.

Due Date: 2 May 2024
Owner: Mr Paul Eagle



5.1 Waitangi Hall

Subject to favourable legal advice -

SEEK expressions of interest for the following by 30 June 2024 – subject to favourable legal advice:

- Legal structure for transferring the ownership of the Hall (building, not land)
- Business Plan
- Plan to upgrade the Hall to a fully compliant standard
- Financial plan to enable the upgrade, one off set-up costs, day to day management, and maintenance (including depreciation)
- Timeline for implementation

Due Date: 2 May 2024
Owner: Mr Paul Eagle

6. Regulatory

6.1 Wind Turbines (CIC-2023-009)



6.1 Wind Turbines

Resource Consent – Wind Turbines (CIC/2023/009)

General

1. The construction and operation of the turbines shall be in general accordance with the resource consent application submitted to Council except that wind turbines other than the Vestas V27 225 kW may be used if all conditions set out below are complied with.
2. In respect of Condition 1, and the use of a different wind turbine, the Consent Holder shall submit a new noise assessment report which demonstrates that the operational noise will comply with Conditions 21 and 22.

Construction

3. The construction and operation of wind turbines shall be limited to within the area labelled 'Proposed Wind Turbine Location' provided in CIC-2023-009 Plan A.
4. The finished wind turbines should be painted in an off-white colour.
5. Disturbed areas from construction activities are to be reinstated so that the finished contours in conform with the surrounding landform.
6. The Consent Holder shall ensure any equipment to be used on the site has been cleaned and inspected so that the equipment is free from introduced species and weeds before it is brought to the Chatham Islands.

Advice note: The crane and turbine equipment shall be water blasted in New Zealand before departure and inspected at the wharf on arrival at the Chatham Islands by the Consent Holder to ensure compliance. These procedures shall be formally in place by the time of commencement of construction on the Chatham Islands.

7. The Consent Holder shall invite and allow for an archaeologist or dedicated cultural monitoring person to be on site during the excavations.
8. In the event that during construction of the turbines or any excavation works in preparation of the site, there is any discovery or disturbance of possible Moriori or Māori archaeological sites, Kōimi/Human Remains and/or Miheke Tūturu, European archaeological features or material that is likely to predate 1900, the following procedures must be followed:

Cease Work and Notify Affected Parties

- a) Immediately following the discovery of material that could be an archaeological site, kōimi/human remains and/or taonga, the Consent Holder and/or their contractors must cease all work within a minimum of 20m of any part of the discovery.
- b) Immediately advise NZ Historic Places Trust, and if required make an application for Archaeological Authority pursuant to the Heritage New Zealand Pouhere Taonga Act 2014.
- c) Immediately advise Hokotehi Moriori Trust and Ngāti Mutunga o Wharekauri Iwi Trust of the discovery.
- d) The New Zealand Police, if any kōimi/human remains are uncovered. This is to determine whether the remains are of a missing person or part of a crime scene. This is also a requirement of the Coroners Act 1988.
- e) If it is unclear whether the find is an archaeological site, kōimi/human

remains and/or miheke, the Consent Holder must consult a suitably qualified archaeologist to confirm its origin.

Secure Site

f) The Consent Holder and/or their contractors must secure the discovery area, ensuring the area (and any object(s) contained within) remains undisturbed and meets health and safety requirements.

g) The Consent Holder shall ensure they are available to meet and guide Hokotehi Moriori Trust and/or Ngāti Mutunga o Wharekauri Iwi Trust representatives, the archaeologist, the New Zealand Police, and the HNZPT Regional Archaeologist, to the discovery areas. The Consent Holder will assist with any reasonable requests any of these people may make.

Resolve

h) Works affecting the archaeologist site shall not resume until Hokotehi Moriori Trust and/or Ngāti Wharekauri Iwi Trust representatives and the New Zealand Police in the case of skeletal remains have each given appropriate consent, approval, or authority for work to continue.

Advice Note: Depending on investigations the applicant may require an Archaeological Authority under the Heritage New Zealand Pouhere Taonga Act

9. The dimensions of the wind turbines shall not exceed the following: i. Maximum height of 50 metres ii. Rotor diameter of 30 metres and shall be of a single pole construction.

Avifauna

10. Any deceased stock on the property should be buried or removed as soon as reasonably practicable.

11. The Consent Holder shall inspect within an 80-metre radius of each turbine tower for any evidence of bird strikes once a month for the first 18 months after commissioning the turbines.

12. Each site inspection shall entail the Consent Holder using a grid reference to search for bird strike, with the monitoring results of each inspection (including tabulated raw data) being lodged with the Consent Authority and the Department of Conservation within 1 week of the inspection being undertaken.

13. The Consent Holder shall record the following information if there is any evidence of bird strikes within an 80 metre radius of each turbine:

a) The location from which a dead or injured bird has been retrieved/recovered, as required by condition 11 shall be recorded by GPS using Chatham Islands Transverse Mercator 2000 co-ordinates.

b) Photographic evidence, and

c) Identification of the species, where possible.

14. Should a bird species that is “threatened” or “at risk” as listed in the Department of Conservations “Conservation status of New Zealand Birds” threat classification series be found, injured or dead at the site, the Chatham Islands Operations Manager for the Department of Conservation is to be notified immediately and the bird provided to the Department of Conservation or its nominated agent for autopsy or rehabilitation.

15. The Consent Authority, following consultation with the Department of Conservation, may require the Consent Holder to engage a suitably qualified avifauna expert

(approved by the Consent Authority) at the expense of the Consent Holder, to analyse the raw data and all results of inspections required by Condition 12 and provide a written report to the Consent Authority and the Chatham Islands Operations Manager for the Department of Conservation within three months of any monitoring period.

16. If in the opinion of the suitably qualified avifauna expert the monitoring described in conditions 11, 12 and 13 above and the assessment required in condition 15 identified a significant adverse effects from the operation of the turbines on local populations of any “threatened” or “at risk” birds listed in the Department of Conservations “Conservation status of New Zealand birds” threat classification series, the Consent Holder on the advice of its suitably qualified avifauna expert shall determine and give reasonable course of action to remedy or mitigate those effects. Possible biodiversity measures shall include but are not limited to:

- a) Costal revegetation of the Point Durham Conservation Coastal Marginal Strip.
- b) Predator control along the Point Durham Conservation Coastal Marginal Strip for feral cats, Weka, Black-backed Gull and Harrier during the breeding season.
- c) Modification of the colour of the turbines.
- d) Offsetting elsewhere on the Island which may include working with other established projects to protect native birds.

The mitigation shall be to the satisfaction of the Consent Authority.

17. If following the 18 months of monitoring for bird strike in accordance with the conditions above and the findings (including any report from a suitably qualified avifauna expert referred to above) show the operation of the wind turbines are having no or minimal effect on bird strike, monitoring may be reduced in frequency or discontinued by the Consent Holder following consultation with the Consent Authority and the Chatham Islands Operations Manager for the Department of Conservation.

Noise

Construction

18. Construction activities must be conducted in accordance with NZS 6803:1999 Acoustics Construction Noise and must comply with the applicable noise limits contained within Table 2 of that Standard.

19. A Construction Noise Management Plan (CNMP) shall be prepared prior to the commencement of construction activities and shall be implemented throughout construction and commissioning.

20. The CNMP shall include specific discussion of any construction activities occurring between 1900 and 0700 hours, blasting (if required), and truck movements on Waitangi Tuku Road.

Operational – Wind Turbine

21. The Consent Holder shall ensure that, at any wind speed, wind farm sound levels do not exceed the background sound level by more than 5 dB, or a level

of 40 dB LA90 (10 min), whichever is the greater, at any point within the notional boundary of any dwelling or building housing noise sensitive activities at the date of granting consent. 22. Wind farm sound shall be measured and assessed in accordance with the New Zealand Standard NZS 6808:2010 Acoustics – Wind farm noise.

Transportation

23. The consent holder shall, at least one month prior to the turbines arriving at the port in Waitangi, provide to the Council a Shipping, Transport & Logistics Plan for its approval. The plan shall describe the method and arrangements for transporting the equipment to its final location. The plan will also identify any necessary permanent upgrades or temporary strengthening of the road network (including bridges) so as to not exceed design load limits.

24. The design and construction of the vehicle crossing to the site from Waitangi-Tuku Road shall be in general accordance with Council's standard drawing 005 (attached).

General

25. The Consent Authority may serve notice on the Consent Holder pursuant to Section 128(1) of the Resource Management Act 1991 for the purpose of avoiding, remedying or mitigating any adverse effect on the environment that may arise from the exercise of this resource consent and that was not anticipated at the time of the commencement of this consent.

26. The consent Holder shall pay to the Consent Authority such administration, supervision and monitoring fees as fixed from time to time by the Consent Authority in accordance with section 36 of the Resource Management Act 1991. The Consent Holder shall meet the reasonable costs of compliance with all the requirements and conditions of this consent.

See also attached Plan A and Access Plan

Decision Date: 14 Mar 2024
Mover: Cr Judy Kamo
Seconder: Cr Graeme Hoare
Outcome: Approved

6.2 Move to Public Excluded



Move to Public Excluded

THAT the meeting move to public excluded.

Decision Date: 14 Mar 2024
Mover: Mayor Monique Croon

**Out of Public Excluded**

THAT the meeting move out of public excluded.

Decision Date: 14 Mar 2024

Mover: Mayor Monique Croon

Seconded: Cr Graeme Hoare

7.3 Close the meeting

Next meeting: Council Meeting - 2 May 2024, 8:15 am

New Actions raised in this meeting

| Item | Action Title | Owner |
|------|--|---------------|
| 5.1 | 5.1 Waitangi Hall Due Date: 2 May 2024 | Mr Paul Eagle |
| 5.1 | 5.1 Waitangi Hall Due Date: 2 May 2024 | Mr Paul Eagle |

Summarize the key decisions made and officially close the board meeting.

Signature: _____

Date: _____



2. Democracy

2.2 Representation Review

| | |
|--------------------|-----------------------------|
| Date of meeting | 2 May 2024 |
| Agenda item number | 2.2 |
| Author/s | Paul Eagle, Chief Executive |

Purpose

Decision paper for Council to consider representation ahead of the 2025 Election cycle.

Recommendations

THAT Chatham Islands Council:

1. Retain the First Past the Post (FPP) electoral system for the 2025 election.
2. Is represented by:
 - 1 Mayor
 - 8 Councillors
3. Members are Elected at Large.
4. Does not establish community boards.

Background

In accordance with the Local Government Act 2002 the Chatham Islands Council is required to review its representation arrangements.

At its Ordinary Monthly Meeting held 23 March 2023 the Council agreed to stay with the status quo and resolved that the Representation Arrangements be approved for public consultation.

Reasons for these resolutions:

- a. It is Council's view that 9 elected members (Mayor and 8 Councillors) provide a good cross section of community representation and allows for a larger quorum to cover for absentees.

- b. The community is too small to be split into wards for representation purposes.
- c. There are no communities of interest large enough to warrant the establishment of a community board.

However, the representation arrangements considered by Council in March 2023 were outside of the review timeline, so need to be considered once again to comply with the Local Electoral Act 2001.

Next Steps

If Council agrees with the recommendation, a public notice will be prepared inviting submissions from persons with an interest in the proposed representation arrangements.



2. Democracy

2.3 Minutes from **Kāhui Manu Tāiko**

| | |
|--------------------|-------------------------------|
| Date of meeting | 2 May 2024 |
| Agenda item number | 2.3 |
| Author/s | Jo Guise, Executive Assistant |

Purpose

Information for Council.

Recommendations

1. THAT information be received.

Background

Kāhui Manu Tāiko (formerly Four Entities) is the group set up to represent the communities of Chatham and Pitt Islands. It consists of representatives from the four island governance entities on the Chatham Islands; Chatham Islands Council, Chatham Islands Enterprise Trust, Hokotehi Moriori Trust and Ngāti Mutunga o Wharekauri Iwi Trust, and represents a collective 'voice' for the community.

Kāhui Manu Tāiko has created the Chatham Islands Strategy 2024-28 which was launched to the Chathams community on 23 April.

Attached to this report are the minutes from the Kāhui Manu Tāiko meetings held since the beginning of the year.

Minutes

Kāhui Manu Tāiko

Date: 12 February 2024

Kāhui Manu Tāiko ... 2.3 b

Time: 1.00pm - 2.46pm

Location: Chatham Islands Council Chambers

Present: Paul Eagle (CIC), Colette Peni (CIC), Monique Croon (CIC), Deena Whaitiri (NMoWIT), Hone Tibble (NMoWIT), Rana Solomon (CIC / HMT), Deborah Goomes (HMT), Brian Harris (CIET), Toni Gregory-Hunt (CIET), Hamish Chisholm (CIET), Eamon Coulter (RPSC), Roanna Grover (DIA), Rebecca Hibbert (DIA), Anthea Oliver (DIA)

Attendees: Jo Guise (Minutes), Joanne Becker (DIA - Co-ordinator Lottery Environment & Heritage funding), Wenda & Rosie (NZSL Interpreters),

Apologies: Gail Amaru

Karakia / Welcome

Hone Tibble

The meeting opened with a Karakia by Hone Tibble.

Conflicts of Interest

Monique Croon

Hone Tibble (NMOWIT – housing)

1. Outstanding Actions

Monique Croon

Actions Summary Table

| No. | Action | Who | Due |
|-----|--|------------------|---|
| 1 | DIA to draft T.o.R for Kāhui Manu Tāiko <i>Philippa – drafted, share draft with treaty partners, then wider group will look to circulate after the meeting but before the next meeting</i> | DIA | Drafted – feedback to sign off at next meeting |
| 2 | Remaining funding of \$19,299 | Kāhui Manu Tāiko | Before next meeting - Create a draft budget and set out what the funding should be used for |
| 3 | MOU to be signed off by Kāhui Manu Tāiko | NMoWIT | Before next meeting – new name to be reflected in MOU |
| 4 | Write as an entity (Kāhui Manu Tāiko) to Prime Minister and ask for a Ministerial portfolio to be allocated to the Chatham Islands | Kāhui Manu Tāiko | Completed – Entities to write to relevant Ministers in new year, collective letter from the group at a later date |
| 5 | DIA, CIET & RPSC to meet around traction around the ship - where are we at and | RPSC | Completed – DIA drafting a briefing |

| | | | |
|----|---|--------------|--|
| | what are the barriers which could be removed. | | paper |
| 6 | HMT to have an in-house discussion around the capacity around farming and other items. Following that, to engage with NMOWIT with the joint work programmes | HMT/NMOWIT | HMT to lead – Rana to follow up |
| 7 | NMOWIT housing project on next agenda – Gail to present | NMOWIT | Next Meeting |
| 8 | RPSC to share the work programme on all 4 entities websites once finalised | RPSC | Rebecca leading - awaiting on follow-up from J Gurden - Before next bi-annual stakeholder hui in May |
| 9 | Working Group Updates – Additional houses (NMOWIT) – Insulation & heating (Warmer Kiwi Homes Initiatives) | Eamon / Hone | Letter to EECA - Progressing on behalf of the group |
| 10 | Funding application to cover costs for employment of co-ordinator for actions, specialist advice and resources. | | Before next meeting |
| 11 | Letter to Air Chathams re Flight schedule | | Work with Secretariat to draft a letter and forward to Entity leads prior to sending |
| 12 | 'Lessons Learned' session in calendar yearly – due October 2024 – add to ToR | | |
| 13 | DIA Report – 30 Year Review Infrastructure & Assets - Each entity to speak to respective boards | | Agenda item in April |
| 14 | NMOWIT Housing Project on next agenda | | |

- It was noted that the new name Chatham Islands Strategy – “*Our islands collective approach to priority projects*” should be reflected in the MOU.

2. Updated Sequencing of Working Groups and Agency Representation

Eamon Coulter

Eamon referred to the Sequencing of Working Groups worksheet and reminded the group of the nine initiatives they wished to focus on and the agencies who have advised they wished to be involved.

3. Housekeeping

Monique Croon

Financial – DIA Funding top-up

Hone advised the Ombudsman powhiri would be the first costs out of the budget.

Signing Terms of Reference

Received the draft Terms of Reference and would be signed off at next meeting.

Secretariat

The entity hosting the bi-annual hui would the lead for the next six months. It is due for renewal in June 2024.

4. MOU

Paul Eagle

Once entity name has been included the MOU can be signed. Council to lead the signing then to pass on.

5. Lottery Environment and Heritage Funding

Eamon Coulter / Joanne Becker

Joanne Becker explained the fund and the areas it covers. She advised a significant cut in funding available and the next round closes on the 28th February with another round opening in June 2024. A requirement of the funding was having secured 1/3 of the project cost for partnership funding. Development of a Strategy or report type document could be funded without needing a secured amount.

6. Working Group Updates

Entity Leads

NMoWIT Housing Project (*deferred to next meeting*)

Freight Pathways (Monique Croon)

- Air Chathams Schedule Change
 - KMT had requested an extension of time which was granted – but clear schedule change would be continued.
 - Will affect tourist industry, high school students, freight, business travel, health travel
 - Secretariat to write a collective letter explaining concerns around new schedule.
- Good time for 'Needs Assessment' for freight pathways
- Shipping Update (Brian Harris)
 - Ship scheduled to go to dry dock on 29 March (no flexibility on date)
 - Barge would be available in an emergency
 - 8 weeks storage of fuel on island
 - Community Shipping meetings in coming week

7. Approach to reviewing the Strategy annually

Eamon Coulter

- 'Lessons Learned' session in calendar yearly – due October 2024
 - Reflection of last 12 months
 - Have you been focussing in the right areas?
 - What has progressed?
 - What hasn't progressed and why?
 - Whats worked well?
 - What hasn't worked well and why?
 - What has been the collective approach of the group?

- What do you need to do differently in the next 12 months?

8. Next Steps – 2024 Initiatives

Entity Leads

CI Strategy Launch – 10 April 2024 at the Den

- Ro still working on final changes to Strategy and working with design team
- Timing – on track – final document to Ministers end of February

Bi-annual Stakeholders hui – 10 May 2024 (NMoWIT)

- Noting date change 7-10 May

9. Ombudsman Visit 12-16 February

Deena Whaitiri

Powhiri for Ombudsman

10. DIA Report – 30 Year Review Infrastructure & Assets

Monique Croon

Each entity to speak to respective boards and put on the April agenda.

Ro advised it was a publicly available document. They have used key parts and findings in the report when reporting to new Ministers.

Closing karakia

Rana Solomon

The meeting closed at 2.46pm.

Minutes

Kāhui Manu Tāiko

Date: 15 March 2024

Kāhui Manu Tāiko ... 2.3 c

Time: 10.00am

Location: Chatham Islands Council Chambers

Monique Croon (Mayor), Paul Eagle (CiC), Collette Peni (CiC), Gail Amaru (NMoWIT), Hone Tibble (NMoWIT), Brian Harris (CIET), Toni Gregory-Hunt (CIET), Deb Goomes (HMT), Rana Solomon (HMT), Roanna Grover (DIA), Philippa Casagrande (DIA), Ben Clark (RPSC), Rebecca Hibbert (RPSC), Barby Joyce (Heartlands), Carolyn Guy (MPI)

Attendees: Jo Guise (Minutes)

Apologies: Eamon Coulter (RPSC), Hamish Chisholm (CIET), Deena Whaitiri (NMoWIT)

Karakia / Welcome

Rana Solomon

The meeting opened with a Karakia by Rana Solomon.

Apologies

RESOLVED:

THAT the apologies be accepted.

TONI GREGORY-HUNT / BRIAN HARRIS

Conflicts of Interest

Monique Croon

N/A

Outstanding Actions

Monique Croon

Actions Summary Table

| No. | Action | Who | Due |
|-----|---|------------------|---|
| 1 | DIA to draft T.o.R for Kāhui Manu Tāiko <i>Philippa – drafted, share draft with treaty partners, then wider group will look to circulate after the meeting but before the next meeting</i> | DIA | Drafted – feedback to sign off at next meeting |
| 2 | Remaining funding of \$19,429.43 | Kāhui Manu Tāiko | Before next meeting - Create a draft budget and set out what the funding should be used for |
| 3 | Write as an entity to Prime Minister and ask for a Ministerial portfolio to be allocated to the Chatham Islands | KMT | Write to relevant Ministers – collective letter from KMT at a later date |

| | | | |
|----|---|----------------|---|
| 4 | HMT to have an in-house discussion around the capacity around farming and other items. Following that, to engage with NMOWIT with the joint work programmes | HMT/NMoWIT | <i>HMT to lead – Rana to follow up</i> |
| 5 | RPSC to share the work programme on all 4 entities websites once finalised | RPSC | Rebecca to re-send - Before next bi-annual stakeholder hui in May |
| 6 | Working Group Updates – Additional houses (NMOWIT) – Insulation & heating (Warmer Kiwi Homes Initiatives) | Eamon / Hone | Met with CEO of EECA – On hold until budget announcement |
| 7 | Funding application to cover costs for employment of co-ordinator for actions, specialist advice and resources. | | In progress – Application in June |
| 8 | Letter to Air Chathams re Flight schedule | | Letter on hold – to meet with Craig Emeny |
| 9 | 'Lessons Learned' session in calendar yearly – due October 2024 – add to ToR | | October |
| 10 | A letter on behalf of KMT inviting Eamon to the island for acknowledgement of his contribution | Monique | |
| 11 | Comms around the Forum | Gail / Monique | |
| 12 | Each entity to provide Island attendees at the forum | Entity Leads | |
| 13 | Re-circulate the Strategy for review before it goes to printer | Roanna | Comments to Ro by 8 April |
| 14 | Workshop for Liardet report inaccuracies – CIET to have first cut at report prior to workshop | | |

1. Confirmation of Minutes

RESOLVED:

THAT the minutes from the meeting on 12 March 2024 be a true and accurate record.
TONI GREGORY-HUNT / RANA SOLOMON

Ben Clark advised that Eamon Coulter would no longer be in the Director role for KMT. Rebeccah Hibbert would be the lead contact point temporarily until the role could be filled. He also advised they had been given some funding certainty for the public service team through until June 2025. This would allow them to demonstrate to the new government the value of the arrangement, and to find a sustainable funding model.

Mayor Croon acknowledged the contribution Eamon Coulter had provided the KMT. Gail Amaru suggested a personal acknowledgement and taonga in appreciation of the contribution he had given to the role.

It was suggested a letter on behalf of KMT inviting Eamon to the island for cknowledgement of his contribution.

2. CI Forum Update

Ro / Gail Amaru

Roanna advised she was convening a forum committee next week. She updated the group with current situation with preparations for the event. Roanna to email suggested meeting times.

Gail Amaru clarified they were proposing \$3k of the budget to support KMT activity e.g. similar to the Ombudsman visit, launch of the strategy and any resolutions for taonga / gifts. There was a commitment to the Secretariat of approximately \$5k. She noted the funding envelope went to 18 June 2024.

Gail then ran through the proposed itinerary.

3. Terms of Reference

Roanna Grover

Roles and Responsibilities

Secretariat role

- Meeting coordination – prepare agenda and minutes (actions only)
- Documentation – keeping records of minutes, decisions, action items, and other relevant documents.
- Drafting correspondence required
- First point of contact
- Maintaining an up-to-date list of group members including contact information and any relevant affiliations or roles
- Disseminate information to members.

The budget had been circulated.

Paul Eagle outlined changes made to the Terms of Reference.

RESOLVED:

THAT the 4 suggested changes are made to the Terms of Reference.

Gail clarified 400 copies of the Strategy should be printed but until her board had seen the document, she was not happy for it to be printed.

4. Working Group Updates

Entity Leads

NMoWIT Housing Project (Gail Amaru)

The Housing project had come to a standstill because of issues identified under the Section 92, which was access to 3 Waters and an issue over the width of the roadway.

Gail noted they had an opportunity through Kainga Ora to relocate some pre-existing 1brm prefabs to the island, which would alleviate initial pressure, and support the build of phase 2. The dwellings in Christchurch had been ear marked for the project. Once the issue around water supply was resolved, project could be activated. They would negotiate with the council how they could achieve the outcome for phase 1, noting phases 2 and 3 may need to have its own water supply.

Shipping Update (CIET)

Carolyn Guy (MPI)

- Concerns around animal welfare heading into winter and capacity to carry those, but working with farmers to manage risks.
- Optimistic of additional ship – prioritise cattle
- Need to look at risk management as the Southern Tiare getting older
- Second option is culling – work with farmers around process
- Pitt Island needed to be a priority
- Need long term certainty – decisions around the future.

Brian Harris advised they were trying to minimise the time the ship would be in dry dock and gave the schedule of the next few voyages. They would be getting daily updates on findings and hoped they would understand how long the ship would be in drydock within the first week. They would be giving weekly updates to key stakeholders.

Contingency planning

- Intention to have 10 weeks fuel on island when ship goes in to drydock
- Management of livestock beyond the 29th
- On-gong reliability to provide the shipping service
- Ronna notified inter-agency meetings had been established and were meeting monthly to look at risks

Brian confirmed they had responded to Ministers, and also gave a report from ship managers in terms of the life expectancy. Information was now with the Minister.

5. Liardet Report – Review of CI Infrastructure and Assets

CIET

Brian Harris noted there were a number of inaccuracies and inconsistencies in the report. He wanted it noted that the Trust was displeased with the following –

1. Consultation process not taken place
2. Parts of the report were being used by various agencies to form and develop policy and direction
3. There had been no opportunity for key stakeholders to record their views in terms of the report's inaccuracies and inconsistencies.

Brian continued that the Trust had recorded their comments with respect to what they perceive as inconsistencies and inaccuracies. He considered a joint response from other entities.

Brian proposed two solutions –

1. Bring the report back to the island so it could be discussed with the key stakeholders; or
2. It could be left for key stakeholders to develop a report which consists of what they believe are inaccuracies or inconsistencies in the report.

The Trust were not happy with the way it presently sat, and wished to record that formally.

Council, HMT and NMoWIT all supported the Trust. If it was going to Ministers, it needed to be accurate. They agreed a collective response was needed and suggested a workshop would be the ideal opportunity to collectively share views. CIET to have first cut to take to the workshop.

Philippa Casagrande thanked the group for highlighting inaccuracies in the report and said it was important to DIA that they understood them.

Closing karakia

Gail Amaru

The meeting closed at 11.34am.



3. Finance

3.1 Financial Report to March 2024

| | |
|---------------------------|--|
| Date of meeting | 2 May 2024 |
| Agenda item number | 3.1 |
| Author/s | Tanya Clifford, Environment Canterbury |

Purpose

For Council to receive the financial report to March 2024.

Recommendations

THAT the Financial Report to March 2024 be received.

Background

The March financial report is attached.

Chatham Islands Council - Council cash financial report year-to-date transactions

Report as at 31 March 2024

| Year to date 'cash' transactions for eight months | Revenue | Expenditure | Net surplus/ (loss) | Capital | Cash surplus/ (loss) |
|---|------------------|------------------|------------------------|------------------|-------------------------|
| Leadership & community partnerships | - | 264,824 | (264,824) | - | (264,824) |
| Transportation, roading & coastal networks | 2,509,956 | 1,477,192 | 1,032,764 | 957,251 | 75,513 |
| Roothing | 2,447,258 | 1,407,341 | 1,039,917 | 957,251 | 82,666 |
| Coasts | 62,698 | 69,851 | (7,153) | - | (7,153) |
| Three waters supply & treatment - potable water | 1,008,900 | 374,528 | 634,372 | - | 634,372 |
| Three waters supply & treatment - wastewater | 101,903 | 147,797 | (45,894) | - | (45,894) |
| Waste management & minimisation | 203,571 | 631,368 | (427,798) | - | (427,798) |
| Community development & emergency response | 670,228 | 1,123,987 | (453,760) | 315,449 | (769,209) |
| Community services | 136,538 | 423,943 | (287,405) | 304,551 | (591,956) |
| Petrol | 498,812 | 446,385 | 52,427 | 10,898 | 41,529 |
| Emergency services | 34,878 | 253,659 | (218,782) | - | (218,782) |
| Environmental protection, compliance & planning | 241,108 | 922,160 | (681,053) | - | (681,053) |
| Biosecurity and animal control | 165,456 | 612,858 | (447,403) | - | (447,403) |
| Resource management and regulatory | 75,652 | 309,302 | (233,650) | - | (233,650) |
| Corporate services and other overheads | 5,118,462 | 2,067,795 | 3,050,667 | 221,661 | 2,829,006 |
| Corporate services | 915,462 | 2,067,795 | (1,152,333) | 221,661 | (1,373,994) |
| Annual appropriation | 4,203,000 | - | 4,203,000 | - | 4,203,000 |
| Totals | 9,854,127 | 7,009,652 | 2,844,475 | 1,494,361 | 1,350,114 |

All figures are 'cash' based and exclude depreciation - budgeted at \$2,483,000 for the year

Notes:

| | |
|---|---|
| Leadership & community partnerships | Predominately includes costs related to Councillor honorarium. No issues of note to report. |
| Transportation, roading & coastal networks | Roothing projects primarily on track, with the exception of the Owenga Loading Ramp, which has primarily been deferred to 2024/25. NZTA subsidy rate remains at 88%. |
| Three waters supply & treatment - potable water | The 3 waters - better off funding grant of \$540k has been received up front, with project costs ongoing. These transactions were excluded from the budget, so we will expect an unfavourable cash impact as cash associated with the grant is spent. |
| Three waters supply & treatment - wastewater | No issues of note to report. |
| Waste management & minimisation | No issues of note to report. |
| Community development & emergency response | A large amount of works was expected in this area, funded through TIF. Work also ongoing related to 3 waters better off funding. |
| Environmental protection, compliance & planning | No issues of note to report, primarily related to works performed by ECan. |
| Corporate services and other overheads | Predominately includes the costs relating to staff wages, ECan contract, IT support and insurance costs. |

Chatham Islands Council - Council cash financial report year-end forecast (continued)

Report as at 31 March 2024

| Remaining 'cash' difference to budget for five months | Revenue | Expenditure | Net Surplus/ (loss) | Capital | Cash surplus/ (loss) |
|---|-------------------|------------------|------------------------|------------------|-------------------------|
| Leadership & community partnerships | - | 83,656 | (83,656) | - | (83,656) |
| Transportation, roading & coastal networks | 1,857,628 | 164,184 | 1,693,444 | 2,084,749 | (391,305) |
| Roothing | 1,900,396 | 181,143 | 1,719,253 | 2,084,749 | (365,496) |
| Coasts | - | - | - | - | - |
| Three waters supply & treatment - potable water | - | 46,000 | (46,000) | - | (46,000) |
| Three waters supply & treatment - wastewater | - | 323,552 | (323,552) | - | (323,552) |
| Waste management & minimisation | - | 13,595 | (13,595) | - | (13,595) |
| Community development & emergency response | 141,269 | 364,300 | (223,031) | 284,551 | (507,581) |
| Community services | 664,673 | 264,300 | 400,373 | 295,449 | 104,924 |
| Petrol | - | - | - | - | - |
| Emergency services | - | 100,000 | (100,000) | - | (100,000) |
| Environmental protection, compliance & planning | - | 314,960 | (314,960) | - | (314,960) |
| Biosecurity and animal control | - | 82,430 | (82,430) | - | (82,430) |
| Resource management and regulatory | - | 232,530 | (232,530) | - | (232,530) |
| Corporate services and other overheads | - | 151,330 | (151,330) | - | (151,330) |
| Corporate services | - | 151,330 | (151,330) | - | (151,330) |
| Annual appropriation | - | - | - | - | - |
| Totals | 1,998,898 | 1,461,578 | 537,320 | 2,369,300 | - 1,831,980 |
| Expected annual transactions | 11,853,024 | 8,471,229 | 3,381,795 | 3,863,661 | (481,866) |
| Annual Plan/Budget | 11,369,107 | 7,546,526 | 3,822,581 | 4,242,000 | (419,419) |

Highlighted cells indicate instances where the actual transactions exceed budget, red numbers reforecast

Notes:

Transportation, roading & coastal networks

Owenga Loading ramp deferred to 2024/25; \$600k transferred to next year (includes 88% NZTA funding contribution)

Three waters supply & treatment - wastewater

Some three water funding available, may escalate year end spend

Waste management & minimisation

Unexpected events outside of contract scope have occurred, increasing expenditure, likely to exceed budget by year end.

Chatham Islands Council - Council financial report benchmarks (continued)

Report as at 31 March 2024

| Ratio or measure of sustainability | Achieved? | Target | March | December | September |
|--|-----------|-----------|---------|---------------|---------------|
| <i>Cash management:</i> | | | | | |
| Available cash | | | | Not disclosed | Not disclosed |
| Total bank (overdraft) | Yes | > -\$300k | 576,214 | 1,246,701 | 2,097,940 |
| Working capital ratio (ability to pay our bills) | Yes | > 1 | 20.99 | 7.85 | 31.96 |
| <i>Operating cash performance:</i> | | | | | |
| Net cash movement for period (2023/24) | Yes | > \$0 | 445,100 | 1,115,587 | 1,966,826 |
| Operating performance (cash flow) ratio | No | > 10% | 6% | 15% | 35% |
| Adjusted balanced budget (cash) ratio | Yes | > 100% | 116% | 141% | 240% |
| <i>Asset replacement:</i> | | | | | |
| Asset sustainability ratio | Yes | > 85% | 90% | 86% | 86% |

Notes:

Key sustainability ratios remain positive, although there remains a general indication of declining over time. Cash figures have been favourably influenced from the advanced receipt of the 3 waters better off funding. Asset sustainability ratio, has fallen below targeted level, this may change as the year progresses and further asset review in the system occurs.

Formulas:

| | |
|--|---|
| Working capital ratio (ability to pay our bills) | $=\frac{\text{SUM}(\text{cash and debtor assets, excluding JV})}{\text{SUM}(\text{creditors, excluding loan})}$ |
| Net cash movement for period (2023/24) | $=\text{(Total current bank balance)} - \text{(Total bank balance 2022/23)}$ |
| Operating performance (cash flow) ratio | $=\frac{\text{Total current bank balance}}{\text{Total operating revenue for the period}}$ |
| Adjusted balanced budget (cash) ratio | $=\frac{\text{Total operating revenue for the period}}{\text{Total operating expenditure \&}}$ |
| Asset sustainability ratio | $=\frac{\text{Total capital expenditure for the period}}{\text{Total depreciation for the period}}$ |

Highlighting rules:

| | | | |
|--|------------|--|----|
| Ratio within benchmarked expectation | Yes | Ratio not within benchmarked expectation | No |
| Ratio within +/- 2% of benchmarked expectation | Acceptable | | |



Finance

3.2 Adoption of the Consultation Document and supporting information for the Long-Term Plan 2024-2034

| | |
|--------------------|---|
| Date of meeting | Thursday, 2 May 2024 |
| Agenda item number | 3.2 |
| Author/s | Tanya Clifford, Corporate Reporting Accountant, Environment Canterbury |

Purpose

For Council to adopt the Consultation Document (CD) and the supporting information held within the draft Long-Term Plan 2024-34.

Recommendations

THAT the Council:

1. Adopt the supporting information as information that is relied upon by the content of the Consultation Document in accordance with section 95A (4) of the Local Government Act 2002, including the:
 - a. Proposed 10-year combined financial and infrastructure strategy, which includes our 30 year projections for infrastructural capex and opex work.
 - b. proposed significant forecasting assumptions, including those related to climate change.
 - c. forecast financial statements, including accounting policies
 - d. statement concerning the balanced budget
 - e. forecast reserve funds
 - f. forecast funding impact statements (whole of Council and activity)
 - g. proposed revenue and financing policy
 - h. proposed rating and rates remission and postponement policies
 - i. proposed funding impact statement (rates)
 - j. proposed liability and investment management policy
 - k. proposed development or financial contributions

- l. proposed significance and engagement policy
 - m. **proposed working in partnership with Moriori and Māori policy**
 - n. proposed fees and charges and Council dues for 2024/25.
- 2. Adopt the Consultation Document for the Long-Term Plan 2024-34;
- 3. Delegate authority to the Chief Executive Officer to approve any final edits and design changes required to the Consultation Document and/or supporting information to finalise documents for printing and distribution.

Attachments

- i. Chatham Islands Council, Long-Term Plan 2024-34
- ii. Navigating a way forward, Consultation Document for the proposed Long-Term Plan 2024-2034.

Navigating a way forward

Consultation document for the proposed
Long-Term Plan 2024-34

Adopted for consultation XX XX 2024



chatham islands council

Our people, our Islands, our future



Feedback is open from X – X 2024
This consultation document can be read alongside the supporting information. You can find this online at XX
Tell us what you think.

Contents

| | |
|--|----|
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| Our proposed capital work | 18 |
| Audit opinion | 20 |
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to be done last

About this consultation document

Every three years we turn to you, our residents and ratepayers, to give us your feedback on our proposed plan for the next ten years. Once approved, the proposals will make up our Long-Term Plan 2024-2034, which sets out our work and budget for the next decade.

We invite you to share your views by following the submission process outlined at the end of this document by XX. Your feedback will help Council align our Long-Term Plan with what's important to you, our community.

The information in this consultation document is summarised from the supporting information. This is available from the Council office or online at [cic.govt.nz](https://www.cic.govt.nz)

The Long-Term Plan 2024-2034 is expected to be adopted by the Council, post-consultation in June 2024. It will then be available from the Council office and online at www.cic.govt.nz.

Welcome from the Mayor and Chief Executive

Kioranga, kia ora, hello,

Thank you for taking the time to look at our consultation document for the proposed Long-Term Plan 2024-2034.

This consultation document provides a summary of the key issues affecting our community for the next 10 years. Councils need more funding than ever before to meet community expectations and Central Government requirements.

Our rating base is too small to cover all the work that is required to meet legislative requirements. As such, Council relies significantly on funding provided by Central Government to operate sustainably. Such reliance is full of uncertainties and requires us to operate within externally determined funding parameters rather than providing services that reflect what you want. We have no certainty of future support which does limit our ability to invest in our infrastructural assets.

We understand that particularly with a cost-of-living crisis and high levels of inflation, any rates rise will be tough on our ratepayers who are already feeling the stretch. You will see on page 12 that Council's preferred option is to decrease expenditure on uncommitted projects, and increase rates over time.

We are proposing to increase rates by 6.65% in Year 1 (around \$116 extra on average), 6.35% in Year 2 and 6.35% in Year 3. We feel this will go some way to making an increase more affordable for our community.

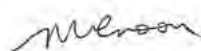
Like many other councils in New Zealand, we're facing challenging times. While we will strive to make our rates affordable, and consider the impact on the community, we will likely need to introduce a rates rise. Given the impact this will have, we need to hear from you before we confirm any future plans.

Our plan considers how we prioritise our work to support our Islanders' social, cultural, environmental, and economic wellbeing. That means ensuring our services – such as our roading, water and wastewater networks and other facilities – are fit for purpose, and that we can afford to pay for them.

Our plan is to ask Central Government for additional funding, which would allow us to invest in our core infrastructure for the Islands. We have identified several critical asset renewals, which will not be fixed over the life of the Long-Term Plan unless additional funding is provided. This means these assets are likely to deteriorate faster over time and the risk of these assets failing is high. If assets like our water or wastewater infrastructure fail, we will also face negative health outcomes – both for our people and for the environment.

We have provided a summary of the issues in this document and describe the available options we must address, along with the implications of these choices. We invite you to read through the information provided and tell us what you think by **XX** 2024.

Me rongo, ngā mihi, warm regards,



Monique Croon,
Mayor

Paul Eagle,
Chief Executive

Located

800km

east of New Zealand's South Island



New Zealand's commercial fishing industry benefits substantially from the thousands of kilometres the Islands add to its exclusive economic zone



The Chatham Islands are home to several of the world's most threatened bird and plant species

Chatham Island

is the largest Island and has an area of

90,000ha

The highest elevation on the Island is

188m



Mangere and Rangatira Islands are nature reserves managed with access authorised by permit only



Pitt Island

is the second largest inhabited island and the first to see the sun

The Islands rely heavily on the Government to supply essential infrastructure and services



Chatham Islands Council is New Zealand's smallest council by population and size



Te Whanga lagoon covers

20,000ha

or about one fifth of Chatham Island

The Council is a unitary authority, having the functions, responsibilities and powers of both a territorial authority and a regional council

What we're asking you to consider

- How we manage our reliance on external funding
- How we meet future legislative requirements regarding three waters
- Our inability to invest in critical infrastructure
- A potential rates rise



How we manage our reliance on external funding

The Chatham Islands are small and unable to fund Council's activities without support from Central Government.

The Government has agreed to provide ongoing 'operational' support to the Chatham Islands Council. There is no agreement on what this covers, and currently the level of funding is below what we need to meet current legislative requirements.

A comprehensive assessment has not been completed on the total additional costs required for Council to move towards being a compliant organisation over ten years.

However, as part of the transition to the Local Water Done Well plan, an assessment of additional capital investment costs and expected ongoing operational costs has been completed. Based on this assessment, Council would require an additional:

- \$19.3 million as a minimum investment to fund critical capital investment. This is detailed further on pages 10-11
- \$10.1 million at a minimum to support proactive maintenance expenditure and other technical support for our three water infrastructure and other additional support costs associated with the transition to the Local Water Done Well plan

- The cost estimates exclude any consequential operational expenditure associated with infrastructural asset additions, including depreciation and ongoing maintenance costs. The cost estimates also exclude any unanticipated future costs such as additional costs related to revised legislation and costs to repair infrastructure after asset failure
- Discussions have been held with various government organisations to investigate potential avenues of funding support available to Council to meet our compliance obligations, both in relation to the new three water regulation and other holistic levels of compliance, with no indication of success to date.

The options for Council are to:

Option 1

Council's preferred option

Advocate for additional funds from Central Government (which is not guaranteed). If extra funds were sourced, we would have a comparable level of service to that of mainland New Zealand.

or

Option 2

Advocate to reduce the work we need to do as part of the Chatham Islands Council Act 1995. This would mean levels of service will deteriorate over time compared to mainland New Zealand. Doing this could also have unintended consequences such as being unable to meet future legislative requirements, or a lack of resilience and ability to respond to climate change events.

Will Council be able to meet its statutory obligations?

Council is not currently compliant with a number of key areas of legislation, and the current level of funding is unlikely to change this position. Furthermore, without any additional funding, we will be unable to meet the requirements from any additional legislation that might be introduced.



How we meet future legislative requirements regarding water

Local Water Done Well

We have a number of assumptions in this space:

- Chatham Islands Council are included in the scope of any new legislation implemented as part of Local Water Done Well
- Chatham Islands Council will own all three water assets and be responsible for all aspects of three water service delivery, including compliance and running costs
- Chatham Islands Council will need to demonstrate it can effectively deliver financially sustainable water services that meets current and future regulations. Future service delivery arrangements, regulations and associate costs are unclear. Current estimates are operational costs will treble and about \$50 million of capital investment is needed over ten years, which is currently unfunded
- At this stage, it is unclear where the additional funding will come from. Previously, funding has come from central government as part of the annual appropriation or as one-off grant.

There is a significant risk that funding will not be secured for this additional work and therefore, the options for Council are to:

Option 1

Council's preferred option

Not complete this work, and therefore not comply with current and future regulations.

or

Option 2

Advocate to reduce the work we need to do as part of the Chatham Islands Council Act 1995.

This would mean level of service will deteriorate over time and there is no ability to accommodate new development in Waitangi. Doing this could have unintended consequences such as asset failure, unsafe drinking water and adverse environmental outcomes.

Freshwater

- Current practices on the Chatham Islands in relation to farm and freshwater management are behind current practices on mainland New Zealand
- To meet current best practice standards, we will need to run a large community engagement project to educate and connect residents with applying better farm management practices
- Chatham Islands Council doesn't have sufficient funds or staff to prioritise this work. Therefore, we are unlikely to be able to achieve compliance with the freshwater policy within the required timeframes.

The options for Council are to:

Option 1

Council's preferred option

Identify areas of the freshwater policy we believe we are unable to comply with and seek approval from the Government to limit the application of the freshwater policy.

or

Option 2

Not comply with the freshwater policy.

Our inability to invest in critical infrastructure

Historically, capital expenditure has only occurred where Central Government support has been provided (either fully or substantially). Doing this has meant our infrastructural assets have deteriorated, particularly our three waters assets.

Council invests in critical infrastructure based on what is affordable, rather than based on best practices, community need, or to ensure infrastructural resilience.

A significant portion of our three waters assets are approaching the later years of their life and are in very poor condition, which poses a high risk of asset failure and an increased likelihood of adverse public health and environmental outcomes. Furthermore, expected levels of compliance in relation to the current levels provided by our infrastructure will likely increase, meaning the cost to replace our three waters assets will be higher.

Recently, we have been unsuccessful in securing funding for necessary upgrades to our three waters infrastructure. This means our three water assets have deteriorated further.



We have identified the following critical investments required to our infrastructure, over the next 10 years. We believe these are all necessary. However, they have been excluded from our financial forecast because we have been unable to secure funding to support the work.

Being able to do this work is important to us, and we will continue to advocate Central Government to secure funding.

Waste management and minimisation

Several significant waste management facilities, including the Owenga landfill, Mitre 12 reuse facility and the Te One weighbridge, were commissioned in 2022 and 2023. Although the facilities are new, there are significant risks related to assets deterioration and failure, with Council unable to commit to future capital works.

We have identified the following critical investments required for our waste management infrastructure, over the next 10 years, which have been excluded from our financial forecast as we have been unable to secure funding to support the project:

New landfill space, \$0.9 million

Landfills are built in a series of stages. It is anticipated that another stage will be required in 2030/31.

Roading

Kaingaroa wharf, \$4 million

Kaingaroa Wharf was acquired by Council in 2021. The structure had fallen into a state of disrepair with the previous owners having failed to secure funding to make repairs, and it was considered Council would be better placed to secure funding for repair or replacement.

Council has secured some funding to make urgent safety repairs to the wharf, but the structure remains formally closed and is at risk of complete structural failure at any time. The cost to replace the failed structure has been estimated at \$4 million, but this funding has not been found. Council intends to approach the Government and wharf users for additional support to assist with stabilising the wharf.

Three water infrastructure

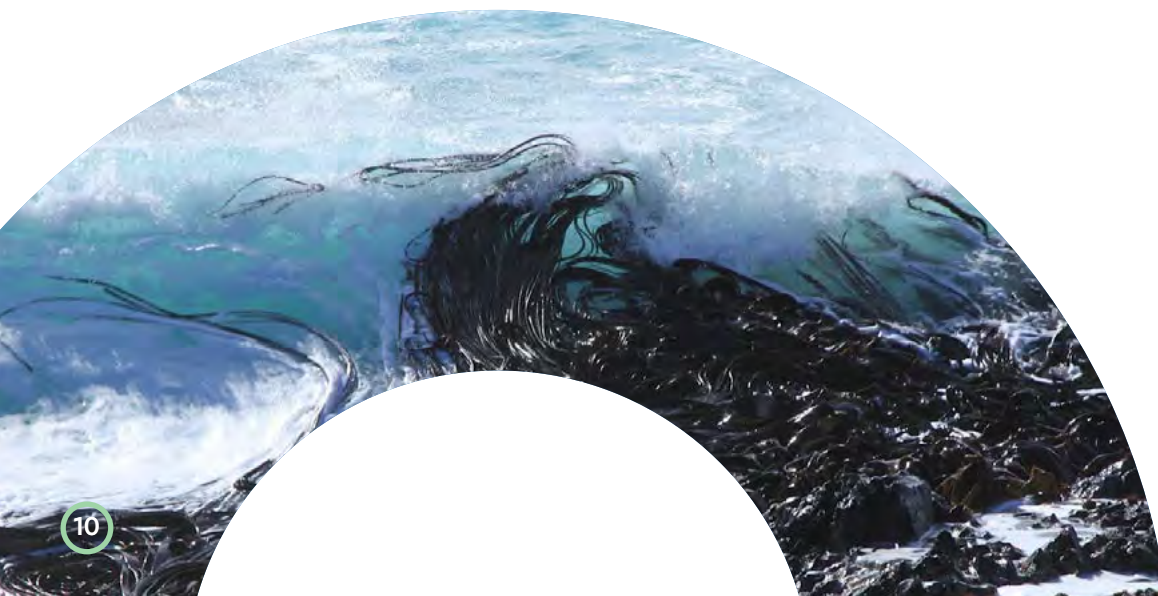
Council has a large number of desired projects that require funding. Our pressing priorities include:

Waitangi and Te One wastewater upgrade, \$9.7 – 18.8 million

The current system is at the end of its useful life and the land application system (where we put the treated wastewater) requires extension. Without adequate treatment, there is a high risk of adverse public health and environmental outcomes. The lower cost value of the upgrade is estimated, assuming the currently serviced population, whereas the upper value assumes increased connections arising from increased demand from existing and future residential housing in Waitangi as well as an extension to Te One.

Sludge receipt and disposal facility \$3.0 million

This will create a facility for the community that collects, treats, and disposes of septic waste. Removing the current practice of burial in pits and providing an engineered, environmentally sustainable process. This is urgently required.



Kaingaroo water renewals (network and treatment plant), \$2.9 million

The reticulation network at Kaingaroo is now at the end of its useful life, resulting in frequent pipe breakages and leakages. Council plans to replace the reticulation to minimise the risk of leaks and ingress of contaminants and conserve the freshwater resource. Upgrades and repairs are also planned to enable compliance with current legislation and best practice.

Waitangi and Te One water upgrade, \$10.5 – 13.3 million

Waitangi water supply reservoirs have been drained to low levels due to leaks and high demand in summer, which have required water conservation notices to be issued. Therefore, it is critical that issues of supply are addressed for Waitangi. This project will see a new water source, new treatment plant, and additional storage. It will also include an extension of the network to Te One, which includes the Islands' main school and other key community facilities, who are currently not connected to a water scheme. The lower cost estimation assumes upgrade allowing for a similar capacity, the higher cost estimation allows for increased connections arising from increase demand from existing and future residential housing in Waitangi.

Alternative water source investigation, design and planning for Waitangi, Kaingaroo and Te One, \$1.5 million (assuming no additional construction) – \$5.2 million

There is increased demand on freshwater resources, arising from increased tourism and transient workers. In addition, Council desires increased resilience in the face of climate change. Some of our current water sources are not replenishing at sufficient levels to meet future demand and therefore, we need to understand our alternative drinking water sources options available to Council, to increase resilience for our schemes and water resources for the wider island.

Works Yard new facility \$1.3 million

The current works yard is no longer fit for purpose and is located in a low-lying coastal area, meaning it is more susceptible to weather events and sea level rise. The Council propose to construct a new purpose-built facility at a more suitable location in Waitangi.

Local Water Done Well

In December 2023, central government announced a new direction for water services – Local Water Done Well.

The first step in February 2024 was to repeal the Three Waters legislation, which was set to transfer three water service delivery from councils to a small number of multi-regional entities. The next step is to provide a framework for Councils to self-determine a financially sustainable service delivery arrangement for three waters. The outcome of this is unknown and so it has been assumed that the responsibility for managing three waters, including providing levels of service, collection of rates, and payment of operating and capital expenditure (including any associated debt repayment), will remain with the Council.

A potential rates rise

Council has created a budget for the next 10 years. We've done this by adding inflation to our previous transactions and updated it to include committed work and grants income we expect to receive.

This places us at an average cash loss of \$500,000 each year of the Long-Term Plan, which is financially unsustainable. We need to do something about this.

The options for Council are to:

Option 1

Decrease our level of expenditure on uncommitted projects or identify areas of potential cost savings. We may not comply with important legislation and regulation. For a positive impact on our average annual cash movement, Council estimates a reduction in expenditure of at least \$200,000 will be required for the first year of the Long-Term Plan, with additional cost efficiencies to be found in the following years.

or

Option 2

Increase our rates with no decrease in our level of expenditure. A 5% increase in rates will increase Council's total rate revenue by \$40,000.

or

Option 3

Council's preferred option

Both decrease expenditure on uncommitted projects, and increase rates over time. This will go some way to making an increase more affordable for our community. How Council should increase rates is considered next.

Tell us what you think. Should we decrease our level of expenditure on uncommitted projects, increase our rates, or do a mixture of both?

See page 14 for sample properties that show this proposed increase.

As part of our rates review process, we compare what our community pays in rates on average with what other small councils in New Zealand pay on average. We do this so we can gauge whether our rates are reasonable and in line with what other councils are setting. Based on that review, it was considered that our rates were lower than other councils. In addition, given the cashflow challenges currently facing the Council, a rates increase would be prudent.

While we always need to balance affordability with action, the options for Council are to:

Option 1

Lift the rate in one go to cover the funding shortfall increasing rates by 25.15% in Year 1 or \$732.51 extra on average to an inflationary increase, but making no further changes for Years 2 and 3.

or

Option 2

Council's preferred option

Lift the rate slowly using a higher percentage increase to be more in line with what other councils are charging over time, increasing rates by 6.65% in Year 1, 6.35% in Year 2 and 6.35% in Year 3. The average additional increase in Year 1 equates to \$116.53 (excluding inflationary adjustments).

or

Option 3

Do not increase rates above levels of inflation. Inflationary movements are estimated as a 3.15% increase in Year 1, 2.85% in Year 2 and 2.85% in Year 3.

Tell us what you think. Should we lift the rates to cover the funding shortfall, lift the rates to be more in line with other councils over time or lift rates to cover inflation only?

We've heard from our community that the approach to setting our water targeted rates could be improved to more equitably allocate water rates to those who use the service. Further work will be required before a metered water rate could be applied in Waitangi, including confirming all connected properties have a water meter, identifying a practical billing mechanism, and considering charging for use of Waitangi community filling station. The network in Kaingaroa needs replacing (currently unfunded) before water meters could be installed.

The options for Council include:

Option 1

Council's preferred option

For Waitangi, move from a fixed charge based on number of connections to a fixed charge and metered charge model, so the charge is more equitably allocated to the users of these services. For Kaingaroa, move to the same model when water meters are installed.

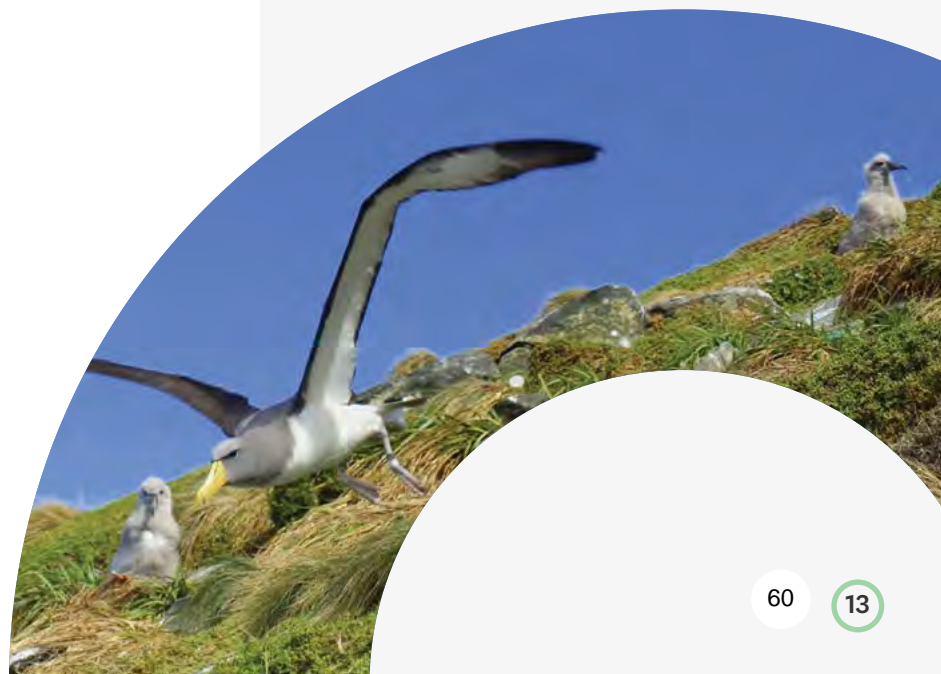
or

Option 2

No change to the current approach.





Before we do more work, we want to know, should we introduce water metering in the future, or keep the status quo?





For all of these topics, Council will determine whether any increase is affordable to the community, but you can tell us too, as part of your feedback.



Sample properties

Our potential rate increases for a selection of our rating properties have been calculated using Council's preferred rating increase of 6.65%. This provides for a greater rating increase over time, allowing Council to become more financially sustainable over time and provide greater comparability in rate contributions with other councils.

| SAMPLE PROPERTY 2024/25 | District Capital Value in Property | General rate | Targeted rate | Total rate | Movement in total |
|--|------------------------------------|--------------|---------------|-------------------|-------------------|
|  Infrastructure | \$1,470,000 | \$5,119.03 | \$659.79 | \$5,778.82 | \$360.33 |
|  Industrial | \$220,000 | \$1,583.75 | \$2,546.09 | \$4,129.84 | \$257.52 |
|  Commercial | \$140,000 | \$411.16 | \$659.79 | \$1,070.95 | \$ 66.78 |
|  Rural Residential | \$385,000 | \$755.34 | \$2,468.99 | \$3,224.33 | \$201.04 |

| SAMPLE PROPERTY 2023/24 | District Capital Value in Property | General rate | Targeted rate | Total rate |
|--|------------------------------------|--------------|---------------|-------------------|
|  Infrastructure | \$1,470,000 | \$4,799.84 | \$618.65 | \$5,418.49 |
|  Industrial | \$220,000 | \$1,485.00 | \$2,387.32 | \$3,872.32 |
|  Commercial | \$140,000 | \$385.52 | \$618.65 | \$1,004.17 |
|  Rural Residential | \$385,000 | \$708.25 | \$2,315.04 | \$3,023.29 |

Our asset and finance strategies

Council is committed to ensuring the continued provision of effective services now and into the future. It achieves this by:

- Managing funds in a financially prudent manner by commencing projects only when they are fully funded. Such an approach may defer projects, which could result in a higher risk of asset failure
- Focusing on maintaining core services and infrastructure as cost-effectively and efficiently as possible
- Maintaining current levels of service provided, with an expectation that service levels will only increase where external support is provided
- Advocating for sustainable and committed funding from the Government and to fully utilise available subsidies.



Statement concerning the balanced budget

If Council's preferred option is progressed, Council is forecasting for total revenue to exceed total expenditure in all years of the Long-Term Plan.

A portion of the grant revenue recognised is used to fund capital roading works. As the Council is unable to fund depreciation or otherwise independently fund capital works, the unfunded portion of these capital projects has had a deteriorating impact on our cash balance, which Council is proposing to address by both reducing expenditure and increasing rates. Timing of when grants are received mean Council's cash balance may fluctuate between a positive and overdraft balance during a year, but Council expects to be temporarily in overdraft at year end for most years of the Long-Term Plan.

As the nature of the overdraft is temporary and the Council is expecting to achieve a surplus in each year of the Long-Term Plan, Council considers the balanced budget assumption has been met.

The Government has agreed to provide ongoing operational support to the Chatham Islands Council, with funding support levels considered periodically. The next funding review is expected to occur in the 2024/25 financial year, which will determine whether Council remains in its current financial situation.

Our revenue and financing

To ensure our finances are managed prudently, the following guiding principles have been applied:

- Funding sources will be at a level to cover our net funding requirements. If funding is insufficient, planned expenditure will be reduced
- Our primary revenue source will be from Government grants, but affordability of rates and council dues will be considered
- Targeted rates are collected from properties that are the direct beneficiaries of services where these can be identified with the incidence of rates to be fairly spread where possible
- The number and costs of projects instigated are acceptable to the community, substantially funded by Government grant
- The needs of current and future ratepayers are considered, including adhering to limits and ratios set in our financial strategy and other policies.

The Council is not proposing to significantly change the way operating and capital expenditure requirements are funded, with the exception of looking to include water metering charges in the future.

Government and other grants

Council is reliant on external funding from the Government to support our projects, with approximately 88% of operating and capital funding sources provided from grants.

The level of support provided through the Crown's appropriation is unconfirmed, and is currently determined annually in May. The projected level of support is based on the prior year's annual appropriation, with an inflationary adjustment applied. The annual appropriation for the 2024/25 financial year is estimated to be \$4.3 million and is subject to a high level of uncertainty. Council will update the financial forecast in May, including the consideration of any further financial implications.

Operating in an environment where key funding streams are unconfirmed remains challenging, especially given the current arrangements are insufficient to assist Council with debt repayment, limiting Council's ability to construct assets.

Council plan to work with the Government to advocate for additional funding to support development of infrastructure on the Island and to improve the level of service. Such an approach requires time to achieve and may result in desired improvements being delayed.

Rates and council dues

Council is committed to keeping rates affordable while ensuring rates (including council dues contributions) are comparable with similar councils of a small or isolated nature.

Due to the small rating base, a movement in rate receipts will not significantly influence overall funding.

Our general approach to increasing rates is to increase prior years figures by the same average inflation rate applied to expenditure. However, Council may determine to apply a different adjustment factor if it considers that the average community rating contribution is below what other small councils pay on average. Council expects any average annual increase will not exceed 15%, and therefore is proposing to set this as the average annual rate increase limit. Council is proposing to increase rates by 6.65% in 2024/25 and therefore the rates increase will comply with this limit.

This rate limit is a change from the last Long-Term Plan, which limited rates increases for general rates to the inflationary movement plus 2%.

Rate penalty dates

The following instalment and penalty dates apply for the 2024/25 set rates:

| | Due date | Penalty date |
|---|-------------------|-------------------|
| 1 | 14 September 2024 | 15 September 2024 |
| 2 | 14 November 2024 | 15 November 2024 |
| 3 | 14 February 2025 | 15 February 2025 |
| 4 | 14 May 2025 | 15 May 2025 |

A penalty of 10% is added to each instalment or part thereof that is unpaid after the last date for payment. Previous year's rates that remain unpaid will have a further 10% penalty added on 6 July.

Rate remissions

If you think you may have difficulty paying your rates, you might qualify for a rates remission or postponement.

A rates remission or postponement allows Council, at its discretion and in certain circumstances, to modify the rates liability on particular rating units. Specific areas where rates exemptions or postponements may apply include:

- Moriori and Māori freehold land
- Not-for-profit community organisations
- Property affected by natural calamity or disaster.

Borrowing

Borrowing is not generally used to fund operating or capital expenditure, because Council is unable to afford the cost of the debt repayment. Given Council's inability to enter into a long-term debt arrangement, the Council's long-term borrowing limits are set at 0%, unless there is a funding arrangement in place to support the repayment.

Council receives an operational support grant in July annually, allowing for proportioning of the grant into term investments, which will become available during the year. Timing fluctuations with income receipts and payments mean the Council's cash balance may fluctuate between a positive and overdraft balance during a year; particularly at the end of the financial year where payments to suppliers may be delayed and interest charges incurred on the overdraft facility. As the nature of the overdraft is temporary and Council expects an influx of cash in July, the borrowing limit is not applied to any cash overdraft.

The Council's borrowing limit is a change from the last Long-Term Plan, where borrowing limits were set at 10% of total equity.

Renewals and depreciation

Council does not recover the cost of future renewals work through depreciation. It is common practice to plan and fund future renewal work by rating to cover the cost of depreciation. Council does not have the rating base to support such activity, nor does the annual Crown contribution cover the cost of depreciation. Future renewals require separate funding support from the Government or Council is unable to fund the renewal.

We have insufficient reserves to cover our desired infrastructural renewals programme. Over the course of the ten-year period, we are investing a greater amount in our infrastructure than is recognised as its value is in use (depreciation).

Other considerations

Climate change

Council is committed to taking a collaborative approach to addressing any identified local causes and impacts of climate change. We hope that our community remains buoyant in response to any climate changes. Costs of meeting our climate change obligations are expected to be absorbed into our current financial projections.

Resilience of infrastructure related to natural hazards

Council has insurance cover for natural disasters, but not all costs would be covered. If infrastructure is damaged, roading repair work will fall under the NZTA Waka Kotahi road works programme, and water and wastewater repairs will fall under the operations and maintenance contract, with any additional repair cost being funded through the Chatham Islands Mayors Relief Fund. If necessary, an application will be made for Government assistance. Privately owned assets, such as wharves, will be repaired at the owner's expense.

Funding uncertainties with capital works

Our roading assets are substantially co-funded by NZ Transport Agency Waka Kotahi (NZTA), at an assistance rate of 88% of total value of expenditure or \$14.66 million over three years. The agency sets guidance for work which is eligible for funding assistance, and this is set out in the National Land Transport Programme.

NZTA is currently evaluating our funding application for the 2024-27 National Land Transport Fund. The 2024-27 application is for \$15.15 million of maintenance, operations and renewals funding, \$21,900 of road safety promotion funding, and \$1.49 million of local road improvement funding. Funding certainty of the majority of the application is reasonably certain. However, the local roading improvement works are subject to a higher amount of uncertainty due to these being considered either additions or improvements to existing assets, such as a loading ramp at Owenga, or seal extensions.

The outcome of the initial maintenance, operation and renewals, and road safety promotion funding applications will be known in May 2024, and the local roading improvements outcome in June 2024.

Proposed capital work

Our financial forecast is based on best estimates of expenditure and funding. A decrease in funding from NZTA will result in a corresponding decrease in roading expenditure.

We are currently only able to commit to completing roading and transport renewal and maintenance work. This is largely subsidised by NZ Transport Agency Waka Kotahi.

Highlights over the next three years include:

Bridges

Currently Council operates on an approximately three-yearly cycle of replacing older bridges with new structures or large culverts, as appropriate.

The preference for installing large culverts is to lower the long-term maintenance requirements, which reduces the future cost burden on Council.

The current level of service provided by our bridges is high, with only two structures remaining on Chatham Island and a further three on Pitt Island that have posted weight restrictions.

One further bridge replacement and a significant headwall improvement at a large culvert are planned, which will remove the last of the bridge postings on Chatham Island, leaving only structures on Pitt Island bearing restrictions.

Sealed roads

Under the current maintenance strategy, sealed road strengthening and repairs are completed once over the course of a three-year National Land Transport Programme investment period. This strategy reduces the cost of sending equipment and resources to the Islands and has allowed an additional quantity of sealed road to be strengthened and repaired for a similar budget spend than in the past.

There have been three cycles using this approach, in which 8.3km of sealed road has been strengthened, since 2017. The next year of scheduled sealed road strengthening is in 2025/26.

This approach has reduced the annual ongoing maintenance costs and significantly improved the condition and level of service of the sealed portion of the roading network.

Unsealed road network

In each three-year National Land Transport Programme investment period, there will be two years of unsealed repairs, one each side of the sealed repair year.

At present, Council is targeting to strengthen the most-trafficked roads on the unsealed network on a 25-30 year cycle. Maintenance metal is applied as necessary to replace metal loss of the running course over the time between renewals, and potholes and other road damage is repaired to ensure the driving quality is adequate.

To achieve the 25-30 year renewal timeframe, Council targets 3.8km of unsealed roading rehabilitation each year that unsealed road renewals are done. Adjustments are made to this as funding levels change.

A continual programme of quality unsealed repairs will improve the quality and lifespan of the road on the unsealed network. Renewed roads have a higher resilience to potholing through the consolidation of the roading material, and shape correction which ensures adequate surface drainage.

This improves the smoothness of the roads in the long-term, providing better value for users, reducing the maintenance burden on vehicles, and improving safety.

Drainage

Council's roading network is served by a significant drainage system of roadside swales and minor culverts, which help to reduce the amount of rainwater on the roads during poor weather. Council has a large number of culvert assets of varying sizes that form much of the drainage network, and many of these culverts are nearing the end of their useful life.

Some culverts are renewed when they are visibly near failure, and some culverts are renewed in conjunction with roading renewals occurring, so they don't disturb the integrity of the new road by replacing the culvert shortly after.

Culverts have only limited value in isolation, and the creation and maintenance of roadside swales is also important in ensuring the drainage networks functions adequately. The purpose of roadside swales is to appropriately capture and direct runoff from the road surface, contributing to improved road surfaces for users to travel along.

The 2024- 27 maintenance period will continue to focus on the renewal of roadside swales around the network and the replacement of culverts as they reach the end of their life.



[page for audit]

Make a submission

What is a Long-Term Plan?

Under the Local Government Act 2002, a council's Long-Term Plan is a required document that forms a key part of any council's commitment to its community. It details the outcomes that council aims to deliver, the activities, and costs over a ten-year period.

Long-Term Plans are updated every three years to reflect changes in council priorities as a result of external requirements such as Government policy, changes in expectations of the community, or changes to organisational requirements. The activity is reviewed in intervening years through the Annual Plan process.

Anyone can make a submission – wherever you live, whatever your age, whether you pay rates or not. Make sure your voice is heard.

Long-Term Plan 2024-34 timeline

Consultation opens **XX** 2024

Consultation closes **XX** 2024

Hearings and deliberations **XX** 2024

Adoption of final plan **XX** 2024

Long-Term Plan comes into effect 1 July 2024

Following the close of consultation, if you have indicated in your submission that you would like to speak to Council about your views, you will be contacted to arrange a time to attend the hearing.

Format

You can submit your views in the following ways:

- **By email** to info@chathamislands.govt.nz – please ensure you use 'LTP SUBMISSION' as your email subject and that your name and address are included. If you wish to attend a hearing, please indicate this in your email.
- **Hard copy** – record your views and return by post, or in person, to an address below. Please ensure your letter includes your name and address.

Publishing of submissions

We are not able to accept your submission without a name and address. You are, however, able to indicate in your submission if you do not wish your name to be made public. All submissions are public documents and copies and/or a summary will be published on our website and are subject to requests under the Local Government Official Information and Meetings Act 1987.

Address for hard copy submissions:

Chatham Islands Council
PO Box 24
Waitangi
Chatham Islands 8942

or

Chatham Islands Council
13 Waitangi Tuku Road
Waitangi

The organisation

Council

Mayor

Monique Croon

Deputy Mayor

Keri Day

Councillors

Greg Horler

Steve Joyce

Nigel Ryan

Graeme Hoare

Amanda Seymour

Celine Gregory-Hunt

Judy Kamo

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Stantec New Zealand Ltd)

Nigel Lister, Rebecca Tinga, Bryan
Peters

Roads and bridges

Kristen Norquay, Andrew Wong

Water and wastewater

Phil Landmark

Waste management and minimisation

Contractors

Environment Canterbury

Fulton Hogan Ltd

Resource management

Beca Ltd

Solicitors

Wynn Williams

Bankers

ANZ (Waitangi – Chatham Islands)

Auditors

Audit New Zealand

(on behalf of the Auditor-General)





Contact us

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Supporting information

for our 10-year plan



chatham islands council

Our people, our Islands, our future



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What is a Long-Term Plan?

Our Long-Term Plan is our commitment to our community.

It forms a plan for the next ten years, a budget, the work we will do, the outcomes that Council aims to deliver, and what it will cost.

A Long-Term Plan is a document required under the Local Government Act, and though it spans ten years, a new Long-Term Plan is updated every three years to reflect changes in Council priorities as a result of external requirements such as Government policy, changes in expectations of the community, or changes to organisational requirements. In intervening years a smaller Annual Plan is developed to mark any changes or revised priorities.

Introduction

Thank you for taking the time to look at our consultation document for the proposed Long-Term Plan 2024-2034.

This consultation document provides a summary of the key issues affecting our community for the next 10 years. Councils need more funding than ever before to meet community expectations and Central Government requirements.

Our rating base is too small to cover all the work that is required to meet legislative requirements. As such, Council relies significantly on funding provided by Central Government to operate sustainably. Such reliance is full of uncertainties and requires us to operate within externally determined funding parameters rather than providing services that reflect what you want. We have no certainty of future support which does limit our ability to invest in our infrastructural assets.

We understand that particularly with a cost-of-living crisis and high levels of inflation, any rates rise will be tough on our ratepayers who are already feeling the stretch. Like many other councils in New Zealand, we're facing challenging times. While we will strive to make our rates affordable, and consider the impact on the community, we will likely need to introduce a rates rise. Given the impact this will have, we need to hear from you before we confirm any future plans.

Our plan considers how we prioritise our work to support our Islanders' social, cultural, environmental, and economic wellbeing. That means ensuring our services – such as our roading, water and wastewater networks and other facilities – are fit for purpose, and that we can afford to pay for them.

Our plan is to ask Central Government for additional funding, which would allow us to invest in our core infrastructure for the Islands. We have identified several critical asset renewals, which will not be fixed over the life of the Long-Term Plan unless additional funding is provided. This means these assets are likely to deteriorate faster over time and the risk of these

assets failing is high. If assets like our water or wastewater infrastructure fail, we will also face negative health outcomes – both for our people and for the environment.

We have provided a summary of the issues in this document and describe the available options we must address, along with the implications of these choices. We invite you to read through the information provided and tell us what you think by XX 2024.

Me rongo, ngā mihi mahana, and warm regards,

Monique Croon, Mayor

Paul Eagle, Chief Executive

Located
800km
 east of New Zealand's South Island



New Zealand's commercial fishing industry benefits substantially from the thousands of kilometres the Islands add to its exclusive economic zone



The Chatham Islands are home to several of the world's most threatened bird and plant species

Te Whanga lagoon covers

20,000ha

or about one fifth of Chatham Island

The highest elevation on the Island is

188m



Mangere and Rangatira Islands are nature reserves managed with access authorised by permit only



Pitt Island is the second largest inhabited island and the first to see the sun

The Islands rely heavily on the Government to supply essential infrastructure and services



Chatham Islands Council is New Zealand's smallest council by population and size



Chatham Island

is the largest Island and has an area of

90,000ha

The Council is a unitary authority, having the functions, responsibilities and powers of both a territorial authority and a regional council

About the Chatham Islands

The Chatham Islands are an archipelago located 800km east of New Zealand's South Island. They consist of two main inhabited islands, and a number of smaller islands within a radius of approximately 50km. The largest Island, Chatham, has an area of 90,000ha. Pitt Island has an area of 6,300ha, and lies 23km south-east of Chatham Island.

The Islands sit on the Chatham Rise, a submerged peninsula which stretches approximately 1,000km east from the Canterbury coastline. Formed by a volcanic up-thrust, the Islands' land surface is predominantly flat with a number of peaks, the highest elevation being 188m. The north-eastern part of Chatham Island is dominated by Te Whanga, a large lagoon that covers 20,000ha, or about one-fifth of the Island.

The Chatham Islands are home to several of the world's most threatened bird and plant species. Mangere and Rangatira Islands are nature reserves managed by the Department of Conservation, with access authorised by permit only. They are managed to protect threatened endemic fauna and flora and to restore the indigenous habitats for those animals and plants. Other distinctive environmental elements are also present on the Islands, presenting potential economic benefits to the community from tourism.

Chatham Islands Council is New Zealand's smallest council by population and size. It is also the country's most isolated region. The Council is a unitary authority, having the functions, responsibilities and powers of both a territorial authority and a regional council.

The Chatham Islands face a number of challenges in relation to sustaining their economy, providing an acceptable level of business and population services, and empowering the community to grasp opportunities and determine their future.

New Zealand's commercial fishing industry benefits substantially from the

thousands of kilometres the Islands add to its exclusive economic zone, but Chatham Islanders themselves share in just a small fraction of this wealth. The Islands rely heavily on the Government to supply essential infrastructure and services, much of which is provided at a minimum level, yet at a high cost per capita. The cost of living and doing business on the Islands is high, constraining the development of local industries and contributing to a declining population.

The next 10 years

Our reliance on external support

There are strong links between the Chatham Islands and New Zealand. The Chatham Islands have some strategic and economic advantages to New Zealand, in terms of expanding the coastal waterways, improving fishery income and therefore tax.

However, the Chatham Islands are small and are unable to fund Council's activities without support from the New Zealand Government.

The Government has agreed to provide ongoing operational support to the Chatham Islands Council, though there is no agreement on what this covers, and currently the level of funding is below levels to meet current legislative requirements.

The options for Council are to either advocate for additional funds from Government (which is not guaranteed) to achieve levels of service comparable to that of mainland New Zealand, or advocate for limitations in scope for the work performed by Chatham Islands Council, as part of the Chatham Islands Council Act 1995. This would mean levels of service may deteriorate over time compared to mainland New Zealand. The latter approach may also relate to unintended consequences.

Will Council be able to meet its statutory obligations?

Chatham Islands Council are not currently compliant with a number of key areas of legislation, and the current level of funding is unlikely to change this position. Further any new standards of legislation CIC will be unable to meet without additional funding to do so.

Our infrastructure

Local Water Done Well

Under this piece of work we have a number of assumptions, including:

- Chatham Islands Council is included in the scope of the new Local Water Done Well plan and any subsequently implemented government legislation, as previous three waters legislation has been revoked
- Chatham Islands Council will retain ownership of all three water assets, and be responsible for all compliance and running costs associated with any waters infrastructure
- The Local Water Done Well plan indicates councils will need to demonstrate they have a financially sustainable model for the delivery of water services that meets both water quality and water infrastructure rules. In practice, this means councils will need to show how their model will fund the necessary infrastructure investments needed to comply with these rules.

Where the Government concludes that a council cannot achieve financial sustainability by, for example, gaining access to long-term borrowing, it will provide limited one-off funding to bridge the gap. Council is not able to fund any capital works through borrowing as the Council is unable to repay the loan. Due to the isolated nature of the Council, working in partnership with other councils to achieve efficiencies, may prove challenging. Council will require support to both bridge the transitional gap to meet obligations set in the Water Services Act 2021 and the ongoing compliance costs. We assume additional funding support will be provided through the Department of Internal Affairs as part of the annual appropriation and the crown for one-off capital support. This funding has not been confirmed, and therefore required capital projects, whilst identified, have been separately disclosed as unfunded projects.

There is a significant risk that funding will not be secured for this additional work and ongoing operational costs and therefore, the 'workable' options for Council are to either to not complete this work and therefore not

comply with the new Water Services Act 2021 or advocate for limitations in scope for the work performed by CIC- as part of the Chatham Islands Council Act 1995, meaning levels of service may further deteriorate over time compared to mainland NZ, such an approach may also relate to unintended consequences., including the likely risk of asset failure/contaminated water supply.

Freshwater

Current practices on the Chatham Islands in relation to farm and freshwater management are behind practices on current mainland New Zealand.

To meet current best practice standards will require a large community engagement project from Council to educate and connect residents with the idea of joining Council in the 'freshwater journey' and applying better farm management practices.

Chatham Islands Council does not have sufficient funds or staff to prioritise this work. Therefore, Council is unlikely to be able to achieve compliance with the freshwater policy within the required timeframes.

The workable options for Council are to identify areas of the freshwater policy Council believes they are unable to comply with and seek approval from the government to limit the application of the freshwater policy or not comply with the freshwater policy.

Non-investment in critical infrastructure

Historically, capital expenditure has only occurred where central government support has been provided (either fully or substantially).

Such an approach has resulted in a deterioration in our infrastructural assets, particularly our three waters assets.

Council invests in critical infrastructure based on what is affordable, rather than based on best practices, community need to ensuring infrastructural resilience.

A significant portion of our three waters assets are at or near the end of their life and are in very poor condition, at or near capacity. All of which

poses a high risk of asset failure and an increased likelihood of adverse public health and environmental outcomes as well as non-compliance with legislation.

Recently, we have received limited funding for critical remedial work to our three waters infrastructure. However, this funding was insufficient to address all necessary upgrades related to our infrastructure.

We have identified the following critical investments required over the next 10 years, which have been excluded from our financial forecast as we have been unable to secure funding to support the work.

Water infrastructure

Council has a large number of desired projects that require funding. Our pressing priorities include:

Waitangi wastewater upgrade, \$5 - 7 million

The current system is at the end of its useful life and the land application system (where we put the treated wastewater) requires extension. Without adequate treatment, there is a high risk of adverse public health and environmental outcomes. The lower (\$5 million) cost value of the upgrade is estimated, assuming the currently serviced population, whereas the upper value (\$7 million) assumes increased connections arising from increased demand from existing and future residential housing in Waitangi.

Sludge receival and disposal facility\$ \$2.3 million

This will create a facility for the community that collects, treats, and disposes of septic waste. Removing the current practice of burial in pits and providing an engineered, environmentally sustainable process. This is urgently required.

Kaingaroa water renewals (network and treatment plant), \$3 million

The reticulation network at Kaingaroa is now at the end of its useful life, resulting in frequent pipe breakages and leakages. Council plans to replace the reticulation to minimise the risk of leaks and ingress of contaminants and conserve the freshwater resource. Upgrades and repairs are also

planned to enable compliance with current legislation and best practice.

Waitangi water upgrade, \$6.6 million

Waitangi water supply reservoirs have been drained to low levels due to leaks and high demand in summer, which have required water conservation notices to be issued. Therefore, it is critical that issues of supply are addressed for Waitangi. This project will see a new water source, new treatment plant, and additional storage. It will also include an extension of the network to Te One, which includes the Islands' main school and other key community facilities, who are currently not connected to a water scheme.

Alternative water source investigation, design and planning for Waitangi, Kaingaroa and Te One, \$1 million

There is increased demand on freshwater resources, arising from increased tourism and transient workers; in addition, Council desires increased resilience in the face of climate change. Some of our current water sources are not replenishing at sufficient levels to meet future demand and therefore, we need to understand our alternative drinking water sources options available to Council, to increase resilience for our schemes and water resources for the wider island.

Works Yard new facility \$1.2 million

The current works yard is no longer fit for purpose and is located in a low-lying coastal area, meaning it is more susceptible to weather events and sea level rise. The Council propose to construct a new purpose-built facility at a more suitable location in Waitangi.

Waste management and minimisation

Several significant waste management facilities, including the Owenga landfill, Mitre 12 reuse facility and the Te One weighbridge, were commissioned in 2022 and 2023. Although the facilities are new, there are significant risks related to assets deterioration and failure, with Council unable to commit to future capital works.

We have identified the following critical investments required for our waste management infrastructure, over the next 10 years, which have been excluded from our financial forecast as we have been unable to secure funding to support the projects:

New landfill space, \$925,000

Landfills are built in a series of stages. It is anticipated that another stage will be required in 2030/31.

Roading

Kaingaroa wharf, \$4 million

Kaingaroa Wharf was acquired by Council in 2021. The structure had fallen into a state of disrepair with the previous owners having failed to secure funding to make repairs, and it was considered Council would be better placed to secure funding for repair or replacement.

Council has secured some funding to make urgent safety repairs to the wharf, but the structure remains formally closed and is at risk of complete structural failure at any time. The cost to replace the failed structure has been estimated at \$4 million, but this funding has not been found. Council intends to approach the Government and wharf users for additional support to assist with stabilising the wharf.

Climate change

Our climate is changing, and together with rising temperatures and sea level, we can expect more frequent events including droughts and floods, possible wildfires, threats to biodiversity and biosecurity, alongside a range of social, cultural and economic impacts. We recognise the need to act with urgency to plan for and adapt to climate change risks whilst continuing to undertake mitigation actions, as well as harness opportunities that our changing climate may bring. To some extent, our actions to address the impacts of climate change are incorporated throughout this supporting information and 10-year budget and integrated throughout our work programmes. As always, we need to balance what is affordable and the work we want to do in this space. *See more on this on page 56-57.*

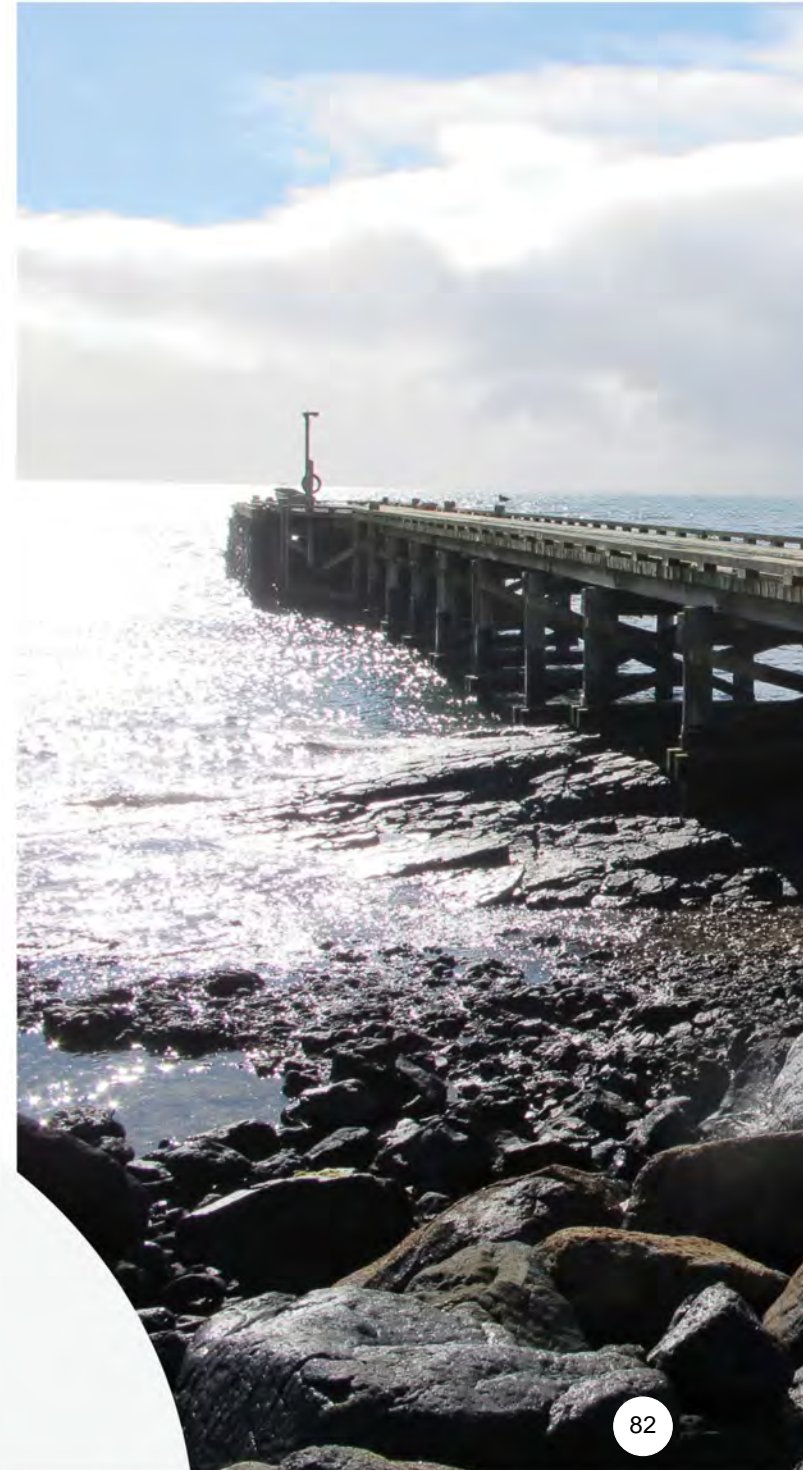
Our vision

Our people, our Islands, our future



Our values

- We will lead with integrity and respect
- We will work collectively for the greater good of the community to achieve community aspirations
- We will strive towards a sustainable future and actively pursue opportunities that can enhance the wellbeing and prosperity of our community
- We will be accountable to our community and transparent in our decision making.



Community outcomes and Council priorities

The following community outcomes summarise what Council believes we need to prioritise to grow and succeed:

Social: resilient community

- Ensure everyone has a sense of belonging and can access information to participate in decision making to help shape the future of the Chatham Islands
- We will build and maintain relationships to strengthen active participation in the best interests of the community
- Communities are prepared and can recover from the changes in the environment, including natural disasters.

Cultural: embracing diversity

- We celebrate our unique identity through arts, culture, heritage, sport and recreation. We will work with imi and iwi to ensure that appropriate regard is made to miheke/taonga and culturally significant matters
- We recognise and value the voices of all cultures and ages within the communities we serve.

Environmental: sustainable action

- Unique ecosystems, landscapes and indigenous biodiversity are valued and stewardship/t'chiekitanga/kaitiakitanga exercised to safeguard our environment for future generations
- The quality of freshwater and coastal water is protected and improved for community wellbeing and ecosystem health
- Living and working environments are sustainable, contribute to healthy communities and minimise waste.

Economic: building growth

- People and goods can move safely and efficiently while reducing impact on the environment
- The economy is supported by appropriate infrastructure that protects people and assets
- We will support growth of a skilled workforce, increased employment, and opportunities for everyone to contribute to and benefit from a vibrant and prosperous economy.

Working with others

We work closely with the other three entities on the Island - Ngāti Mutunga o Wharekauri Iwi Trust, Hokotehi Moriori Trust and Chatham Islands Enterprise Trust.

We also have strong connections to New Zealand, and our service providers including Environment Canterbury, Fulton Hogan, Stantec and Beca.

Key considerations and assumptions in developing this Long-Term Plan

Key considerations as we look to develop the Long-Term Plan 2024-34 include:

- **Relationship with the other three entities on the Island:** Council works with Ngāti Mutunga o Wharekauri Iwi Trust, Hokotehi Moriori Trust and Chatham Islands Enterprise Trust with a focus on our ability to meet Te Tiriti o Waitangi obligations and expectations.
- **Economic uncertainty for the community and cost pressures on the organisation:** Inflation has surged globally and locally, resulting in high interest rates to reduce inflationary pressure and increases in cost of living. Outbreaks of war and geopolitical tensions have also led to uncertainties in the global economy. Cost pressures for the organisation from inflationary pressures, changing requirements and expectations from Central Government and the need to invest to address climate change and environmental challenges continue to put pressure on rates.
- **Climate change:** We are already feeling the impact of climate change, with wild weather a common occurrence on the Chathams. We expect events to continue with increasing frequency and severity, which will have ongoing impacts on the Island and our community.
- **State of the environment:** Pressures of land use change and intensification, pollution, invasive species, and climate change negatively impact on the environment resulting in declining water quality trends and loss of indigenous biodiversity and significant ecosystems.
- **Changing Central Government requirements:** A significant legislative reform programme with implications for regional and local government roles and responsibilities preceded the development of the Long-Term Plan. A new Government will bring changing expectations from Central Government for regional and local government.
- **Financial key assumptions:** These are detailed further in this document, but include the assumption that we will continue to receive substantial funding from the Department of Internal Affairs and NZ Transport Authority (NZTA), which allow us to continue to operate.
- **Crown appropriation:** Assumes inflation, which is a new negotiated adjustment. If inflation isn't included, we can expect an impact on finances.
- **External impacts:** There are factors outside Chatham Islands Council's area of responsibility, which has a direct impact on the work we can deliver. For example, the reliability of the shipping service to the Island.

Our work

We group our work into the below categories. Each have their own levels of service and targets:

- Leadership and community partnerships
- Transportation, roading and coastal networks
- Three waters supply and treatment
- Waste management and minimisation
- Community services and emergency management
- Environmental management, protection and monitoring



Our work

Leadership and community partnerships

The elected representatives of our community form our leadership and partnerships function, which involves engaging with our community to understand their needs and building relationships built with other organisations to support development and utilizing resources efficiently.

Council's priority activities and our rationale for providing these services

Our priorities for this activity include:

- Advocating to Central Government for additional funding to benefit the Chatham Islands.
- Managing partnerships with t'chakat henu, tangata whenua, Chatham Islands enterprise Trust and other island-based organisations to build and maintain strong relationships and identity opportunities and efficiencies benefiting our Island communities
- Increased Councilor visibility by engaging with residents on issues or challenges and listening to feedback.
- Increasing the confidence our community has in the Council's decision-making processes by increasing accessibility.

This activity enables the interests of our Islanders to be represented in a fair and equitable manner and provides opportunities for the community to partner in our decision-making processes.

Contribution to community outcomes

Leadership and community partnerships contribute to the resilient community and embracing diversity community outcomes by ensuring the principles of the Te Tiriti o Waitangi/Treaty of Waitangi are recognised, and that relationships with Moriori and Maori are strengthened and maintained. We are committed to ensuring the diverse voices of our community are heard.

These areas also contribute to the building growth community outcome by advocating for funding or other contributions from the Government to benefit the Island and fostering strong relationships with the Chatham Islands Enterprise Trust and other organisations to provide development opportunities on-Island. Council believes this is the most effective method to ensure future funding needs are met. Council also advocates for additional funding to benefit the island, which if successful provides employment and other growth opportunities for the island, potentially including improved infrastructure. More broadly, we will work with imi and iwi to ensure that appropriate regard is made to miheke/taonga and other culturally significant matters.

Providing the opportunity and appropriate information for the community to participate in the Council's major decisions is of primary importance to the Council. We ensure democratic processes are undertaken appropriately and support the work of our elected members.

Negative effects

No significant negative effects have been identified for the leadership and community partnerships activity.

Levels of service: Ensure Council decision-making is informed by community participation

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|---------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| Number of occasions Council formally communicates with Government to advocate for additional funding to benefit the Chatham Islands | New measure | At least annually | At least annually | At least annually | At least annually |
| Frequency of engagement with Government and Island partners <i>Island partners include Chatham Islands Enterprise Trust, Imi, Iwi and Central Government organisations operating on the Chatham Islands – for example the Department of Conservation.</i> | Achieved | At least twice each year | At least twice each year | At least twice each year | At least twice each year |
| Frequency of opportunities for Imi and Iwi to: <ul style="list-style-type: none"> Contribute to the decision-making processes of the Council Identify potential joint projects with shared efficiencies for discussion with island partner groups Engage with a designated staff member | New measure | At least annually | At least annually | At least annually | At least annually |
| Frequency of community meetings hosted by the Chief Executive and Council to provide opportunities for community voices to be heard | New measure | At least quarterly | At least quarterly | At least quarterly | At least quarterly |
| Percentage of the community that are satisfied with the level of Council engagement. | Achieved (76%) | 70% | 73% | 76% | 76% |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---|----------------------------------|--|--|--|--|
| <p><i>Measured by annual survey of residents. Satisfaction is defined as whether residents consider information supplied by Council was sufficient to provide rationale behind Council's decisions.</i></p> | | | | | |
| <p>Percentage of the community that are confident Council decisions are well-informed and made in the best interests of the community.</p> <p><i>Measured by annual survey of residents. Confidence is defined as whether residents consider xx and sufficient opportunity has been allowed for participation in decision making providing appropriate opportunities for community voices to be heard.</i></p> | <p>Achieved (68%)</p> | <p>66% confident or very confident</p> | <p>67% confident or very confident</p> | <p>68% confident or very confident</p> | <p>68% confident or very confident</p> |

Funding impact statement

| Leadership & community partnerships | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Source of operating funding | | | | | | | | | | | |
| General rates, rates penalties | - | - | - | - | - | - | - | - | - | - | - |
| Targeted rates | - | - | - | - | - | - | - | - | - | - | - |
| Subsidies and grants for operating purposes | 877 | 904 | 930 | 957 | 983 | 1,009 | 1,036 | 1,062 | 1,089 | 1,117 | 1,144 |
| Fees and charges | - | - | - | - | - | - | - | - | - | - | - |
| Local Authorities fuel tax, fines, infringement fees, and other receipts | 121 | 121 | 128 | 128 | 131 | 138 | 139 | 142 | 150 | 150 | 154 |
| Total operating funding | 998 | 1,025 | 1,058 | 1,085 | 1,114 | 1,147 | 1,174 | 1,205 | 1,239 | 1,267 | 1,298 |
| Applications of operating funding | | | | | | | | | | | |
| Payments to staff and suppliers | 320 | 281 | 289 | 297 | 305 | 314 | 322 | 330 | 338 | 347 | 356 |
| Finance costs | - | - | - | - | - | - | - | - | - | - | - |
| Internal charges and overheads applied | 698 | 685 | 704 | 759 | 745 | 766 | 820 | 807 | 828 | 883 | 871 |
| Total application of operating funding | 1,018 | 966 | 993 | 1,056 | 1,050 | 1,080 | 1,142 | 1,137 | 1,166 | 1,230 | 1,227 |
| Surplus / (deficit) of operating funding | (20) | 59 | 65 | 29 | 64 | 67 | 32 | 68 | 73 | 37 | 71 |
| Source of capital funding | | | | | | | | | | | |
| Subsidies and grants for capital expenditure | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in debt | - | - | - | - | - | - | - | - | - | - | - |
| Total source of capital funding | - | - | - | - | - | - | - | - | - | - | - |
| Application of capital funding | | | | | | | | | | | |
| Capital expenditure | | | | | | | | | | | |
| -- to improve the level of service | - | - | - | - | - | - | - | - | - | - | - |
| -- to replace existing assets | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in reserves | (20) | 59 | 65 | 29 | 64 | 67 | 32 | 68 | 73 | 37 | 71 |
| Total applications of capital funding | (20) | 59 | 65 | 29 | 64 | 67 | 32 | 68 | 73 | 37 | 71 |
| Surplus / (deficit) of capital funding | 20 | (59) | (65) | (29) | (64) | (67) | (32) | (68) | (73) | (37) | (71) |
| Funding balance | - | - | - | - | - | - | - | - | - | - | - |
| <i>Excludes depreciation</i> | 15 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 2 |

There are no additional unfunded operational or capital expenditure items for this group of activities.

Transportation, roading and coastal networks

The aim of the transportation, roading and coastal networks group of activities is to link our populated communities and Islands, keep our people connected, safe and active, and contribute to the sustainability and growth of our local economy.

Harbour control is undertaken primarily to ensure safety in our waterways. The Chatham Islands have approximately 360km of coastline that is used extensively for commercial fishing, along with some recreational and aquaculture industries.

Council's priority activities and our rationale for providing these services

Our priority activities include:

- Ensure an overall 'good' driving experience in terms of quality and safety, by appropriately managing the local roading network
- Establishing safe travel routes for high foot travel areas, including schools
- Continue to work with landowners to address feral cattle and other roadside risks, construction of boundary fences to address safety concerns raised by Council and community
- Working together with imi and iwi
- New premises for Council works facilities (Fulton Hogan workshop). This has been paused due to lack of funding availability.

Contribution to community outcomes

The transportation, roading and coastal networks activity provides a safe and resilient transport network, which is safe to use and accessible to all. A reliable transport network also allows for emergency services to safely get to people in need.

In creating our roading works programme, Council consults with NZ Transport Agency Waka Kotahi, along with imi and iwi to ensure that

appropriate regard is made to miheke/taonga and other culturally significant matters.

Our transport system is operated in an effective and efficient way to meet the needs of residents and businesses. The road network is critical to the movement of goods which enables our economy to thrive and grow. Council considers land use sustainability and minimising the impact of climate change on our environment in transport planning.

Our coastal and navigational work provides recreational opportunities to our community and improves health and social wellbeing.

Council can respond and recover from the impact of all marine hazards, ensuring maritime management protects and reduces the impact of harm to the environment and supporting the economic development and sustainability of the fishing industry.

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Council can respond and recover from the impact of all marine hazards, ensuring maritime management protects and reduces the impact of harm to the environment and supporting the economic development and sustainability of the fishing industry.

Fishing and tourism contribute a large amount to our Islands' economic prosperity. Access to water and recreational/commercial activities will be key to our Islands' continued growth.

Negative effects

Roading and transportation activities may contribute to several negative environmental effects including local air pollution, road run-off (rainwater that becomes polluted on the road surface) to adjacent land and waterways, traffic noise and vibration, visual impacts, traffic accidents, loss and damage of land and natural environments, separation of neighbors, and emission of greenhouse gases. Activities are undertaken in accordance with

environmental standards and, where appropriate, resource consent conditions to ensure that negative impacts on the environment are avoided, remedied, or appropriately mitigated.

Levels of service: Operate and maintain a safe and reliable roading network that is in good condition and fit for purpose

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---|---|---|---------------------------------------|---|---|
| Percentage of occasions prior to completing major earthworks outside of the existing road corridor that there is early engagement with Imi and iwi to identify any matters of cultural significance | Achieved | 100% | 100% | 100% | 100% |
| Percentage of footpath strengthened | New measure (Unaudited result - 11.7% of the sealed network was strengthened) | 6% of the unsealed network strengthened | 2% of the sealed network strengthened | 6% of the unsealed network strengthened | Alternate between: 2% of the sealed network strengthened And 6% of the unsealed network strengthened |
| Length of unsealed roading network resurfaced | New measure (Unaudited result - 9.7%) | 9.5% of the unsealed network | 9.5% of the unsealed network | 9.5% of the unsealed network | 9.5% of the unsealed network |
| Percentage of planned footpath maintenance | Achieved | >95% footpaths | >95% footpaths | >95% footpaths | >95% footpaths |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---|---|---|---|---|--|
| completed (aligning with the roading asset management plan) | (100%) | maintained to the expected level of service | maintained to the expected level of service | maintained to the expected level of service | maintained to the expected level of service |
| Rating of the road roughness on the sealed and unsealed network as per the National Association of Australia State Road Authorities (NAASRA) Road Classification System | Achieved (68 for sealed roads and 108 for unsealed roads) | At or below 70 (sealed) and 120 (unsealed) | At or below 70 (sealed) and 120 (unsealed) | At or below 70 (sealed) and 120 (unsealed) | At or below 70 (sealed) and 120 (unsealed) |
| Number of fatal or serious injury crashes on the road network | Achieved (one) | No more than two per year | No more than two per year | No more than two per year | No more than two per year |
| Percentage of residents very satisfied or satisfied with the quality and safety of the sealed road network. <i>Measured by annual survey of residents. Satisfaction is defined as whether residents consider the quality and safety of our sealed roads is appropriate for funding allocated</i> | Achieved (81%) | 45% | 60% | 45% | Alternate between: 45% and 65% depending on whether it is a sealing year. |
| Percentage of residents very satisfied or satisfied with the quality and safety of the unsealed road network. <i>Measured by annual survey of residents. Satisfaction is defined as whether residents consider the quality and safety of our unsealed roads is appropriate for funding allocated</i> | Not achieved (32%) | 50% | 50% | 50% | 50% |
| Percentage of customer service requests relating to roadside hazards on the road or | Achieved | 100% | 100% | 100% | 100% |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---|------------------------------|--|--|--|--|
| footpath network that Council staff respond to within five working days and forward to the relevant contractor | | | | | |
| Number of times Council encourages resident to report poor road conditions, road accidents for rectification and communicates planned maintenance schedules to residents for awareness. | New measure | At least twice each year | At least twice each year | At least twice each year | At least twice each year |
| <p>Identification and mapping of roadside boundary fences that pose a risk of allowing stock to access roads</p> <p>Communication with landowners, where problem areas identified, to encourage remedial action</p> | New measure | <p>Annually</p> <p>At least annually</p> | <p>Annually</p> <p>At least annually</p> | <p>Annually</p> <p>At least annually</p> | <p>Annually</p> <p>At least annually</p> |

Funding impact statement

| Transportation, roading & coastal networks | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Source of operating funding | | | | | | | | | | | |
| General rates, rates penalties | - | - | - | - | - | - | - | - | - | - | - |
| Targeted rates | 81 | 133 | 141 | 150 | 159 | 169 | 180 | 190 | 202 | 214 | 227 |
| Subsidies and grants for operating purposes | 2,164 | 2,233 | 2,388 | 2,404 | 2,433 | 2,603 | 2,619 | 2,649 | 2,831 | 2,848 | 2,879 |
| Fees and charges | 11 | 20 | 21 | 21 | 22 | 22 | 23 | 24 | 24 | 25 | 25 |
| Local Authorities fuel tax, fines, infringement fees, and other receipts | 43 | 93 | 95 | 97 | 100 | 103 | 106 | 109 | 111 | 114 | 117 |
| Total operating funding | 2,299 | 2,479 | 2,644 | 2,672 | 2,715 | 2,897 | 2,929 | 2,972 | 3,169 | 3,201 | 3,248 |
| Applications of operating funding | | | | | | | | | | | |
| Payments to staff and suppliers | 1,646 | 1,873 | 2,030 | 2,029 | 2,043 | 2,216 | 2,215 | 2,229 | 2,417 | 2,415 | 2,431 |
| Finance costs | - | - | - | - | - | - | - | - | - | - | - |
| Internal charges and overheads applied | 183 | 179 | 184 | 198 | 195 | 200 | 215 | 211 | 217 | 231 | 228 |
| Total application of operating funding | 1,829 | 2,052 | 2,214 | 2,227 | 2,238 | 2,416 | 2,430 | 2,440 | 2,634 | 2,646 | 2,659 |
| Surplus / (deficit) of operating funding | 470 | 427 | 430 | 445 | 477 | 481 | 499 | 532 | 535 | 555 | 590 |
| Source of capital funding | | | | | | | | | | | |
| Subsidies and grants for capital expenditure | 2,182 | 3,298 | 3,586 | 2,847 | 2,684 | 3,864 | 3,654 | 2,921 | 4,188 | 3,927 | 3,179 |
| Increase / (decrease) in debt | - | - | - | - | - | - | - | - | - | - | - |
| Total source of capital funding | 2,182 | 3,298 | 3,586 | 2,847 | 2,684 | 3,864 | 3,654 | 2,921 | 4,188 | 3,927 | 3,179 |
| Application of capital funding | | | | | | | | | | | |
| Capital expenditure | | | | | | | | | | | |
| -- to improve the level of service | 257 | 1,045 | 350 | 93 | 101 | 326 | 724 | 101 | 326 | 724 | 101 |
| -- to replace existing assets | 2,222 | 2,703 | 3,725 | 3,142 | 2,949 | 4,065 | 3,428 | 3,218 | 4,433 | 3,739 | 3,512 |
| Increase / (decrease) in reserves | 173 | (23) | (59) | 57 | 111 | (46) | 1 | 134 | (36) | 19 | 156 |
| Total applications of capital funding | 2,652 | 3,725 | 4,016 | 3,292 | 3,161 | 4,345 | 4,153 | 3,453 | 4,723 | 4,482 | 3,769 |
| Surplus / (deficit) of capital funding | (470) | (427) | (430) | (445) | (477) | (481) | (499) | (532) | (535) | (555) | (590) |
| Funding balance | - | - | - | - | - | - | - | - | - | - | - |
| <i>Excludes depreciation</i> | 1,761 | 1,793 | 1,912 | 1,966 | 2,125 | 2,231 | 2,343 | 2,423 | 2,415 | 2,746 | 2,832 |

There is one additional capital expenditure project for this activity that has been excluded from the budget, due to the project not securing funding. This relates to a safety upgrade to Kaingaroa wharf.

Kaingaroa Wharf was acquired by Council in 2021. The structure had fallen into a state of disrepair with the previous owners having failed to secure funding to make repairs, and it was considered Council would be better placed to secure funding for repair or replacement.

Council has secured some funding to make urgent safety repairs to the wharf, but the structure remains formally closed and is at risk of complete structural failure at any time. The expected capital expenditure associated with the Kaingaroa wharf project is detailed below, cost estimates are included in year one, reflecting the urgent nature of the repair works. Council intends to approach the Government and wharf users for additional support to assist with stabilising the wharf.

| Unfunded costs | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Capital expenditure - to replace existing assets | 4,000 | | | | | | | | | |

Estimates exclude ongoing consequential operational expenditure and depreciation adjustments.

Three waters supply and treatment

Safe drinking water and appropriate collection, treatment and disposal of wastewater are essential to the health and wellbeing of our people and our environment.

The Government has launched its Local Water Done Well plan, which is expected to address how local government delivers its water services. The future rules and infrastructure investment requirements under this plan is unclear. For the purposes of this Long-Term Plan, it is assumed that the responsibility for managing our water programmes (including providing levels of service, collection of rates, and payment of operating and capital expenditure), will rest with the Council. Any increased compliance costs resulting from these reforms is expected to be met through funding increases from the annual appropriation or the Crown.

Council's priority activities and our rationale for providing these services

Our priority activities include:

- Water and wastewater reticulation schemes that meets public health standards (while Council aims to achieve full compliance with current drinking water legislation, it is non-compliant due to funding and logistical challenges)
- Water and wastewater reticulation schemes are sufficient for public demand
- Water drinking fountain/water station, this priority has been paused due to lack of funding availability.

Contribution to community outcomes

The three waters supply and treatment activity contributes to the resilient community and sustainable action community outcomes as these services and assets enhance community wellbeing.

Acknowledging our funding constraints, we aim to provide water supplies that are safe to drink, with supply continuity appropriate for firefighting

purposes. Council considers water supply an essential service to our community and recognises the need for resilient infrastructure.

Our water schemes take water from our environment and require a resource consent. We aim to manage water takes so the impact is not detrimental to our surrounding environment and the impact of climate change on our environment is minimised.

Acknowledging our funding constraints, we aim to provide quality wastewater treatment that minimises overflows. We aim to ensure wastewater is collected and treated without causing a hazard to public health or unpleasant odours. Council considers wastewater supply an essential service to our community and recognises the need for resilient infrastructure.

Our wastewater is treated and discharged into our environment. We aim to sustainably manage this, so the impact of the discharges does not adversely affect the health and cleanliness of the receiving environment and the impact of climate change on our environment is minimised.

Council aims to safely transfer stormwater runoff to minimise harm and property damage and so people can move safely during wet weather.

We manage stormwater so that the impact of any discharge minimises the impact of climate change on our environment and does not adversely affect the health and quality of the natural environment.

Minimal expenditure is expected on stormwater and flood protection activities over the 10-year period. Council also has minimal assets related to these activities. Consequently, Council has set no performance measures related flood protection works as it has not such assets to maintain. Furthermore, any transactions related to stormwater or flood protection are included within the wastewater funding impact statement.

Negative effects

High levels of demand for drinking water supply could potentially cause a reduction in the availability of water levels for consumers and emergency services, thereby increasing the risk to health and safety.

Council has historically delayed investing in water infrastructure as such investments were considered unaffordable because of a lack of Government financial support. Such investing delays have also accelerated wear and tear on our existing infrastructure, impacting our ability to improve the reliability of our drinking water supply in terms of quantity and quality within our community.

Many residents have expressed concern about these water shortages. Current trends indicate for the January to March period, dry weather conditions result in critical water shortages that require water conservation measures to be imposed.





Council is unable to guarantee continuity of water supply and the level of service experienced by our residents is unlikely to improve. The trend of increasing tourist numbers during summer will further exacerbate and put pressure on the current water supply. Given Council's funding constraints, there are unlikely to be many effective mitigating actions, except for seeking funding to improve the reliability of drinking water supply in terms of quantity and quality.

Ineffective wastewater infrastructure could result in unplanned sewage discharges, which may affect the environment, public health, public access for swimming and shellfish collection, and tourism. Our wastewater programme is focused on reducing or eliminating these negative effects.

Ineffective storm water infrastructure has the potential to cause damage to property, incurring costs and potentially elevating insurance premiums. The insufficient treatment of storm water may also adversely affect our environment by overloading the wastewater reticulation and treatment system, causing untreated wastewater to overflow.

Levels of service: Provide drinking water supply that meets the needs of our community now and into the future

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|--|---|---|---|---|
| The extent to which the Council's drinking water supplies comply with the Drinking Water Quality Assurance rules, for: a) Bacterial compliance b) Protozoal compliance | Not achieved | Full compliance  | Full compliance  | Full compliance  | Full compliance  |
| Number of temporary advisory notices to boil water (as determined in consultation) | Not achieved (A precautionary) | Zero | Zero | Zero | Zero |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|---|-------------------------|-------------------------|-------------------------|-------------------------------------|
| with Taumata Arowai), indicating that water supplied by Council water schemes is drinking i.e. safe to drink | boil water notice was put in place in December 2022 – January 2023 for Kaingaroa, due to detection of <i>E.coli</i> in water samples) | | | | |
| Percentage of real water loss from Council’s networked reticulation system is managed at an acceptable level | Not measured | Does not exceed 20% | Does not exceed 20% | Does not exceed 20% | Does not exceed 20% |
| Percentage of residents connected to a Council water scheme who are very satisfied or satisfied with the service. <i>Measured by annual survey of residents. Satisfaction is defined as whether residents consider the quality and quantity of our drinking water supply is appropriate for funding allocated</i> | Not achieved (16%) | 50% | 50% | 50% | 50% |
| Percentage of responses to reports of faults that meet the agreed median response times when attending a call-out in response to a fault or unplanned interruption to the networked reticulation system: <ul style="list-style-type: none"> • Attendance for urgent call-outs: the time from when the Council receives notification to when service personnel reach the site does not exceed two hours • Resolution of urgent call-outs: the time from when the Council receives notification to when | Achieved | 100% | 100% | 100% | 100% |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|---|--|--|--|--|
| <p>service personnel confirm resolution of the fault or interruption does not exceed eight hours</p> <ul style="list-style-type: none"> • Attendance of non-urgent call-outs: the time from when the Council receives notification to when service personnel reach the site does not exceed two hours • Resolution of non-urgent call-outs: the time from when Council receives notification to when service personnel confirm resolution of the fault or interruption does not exceed eight hours | | | | | |
| <p>Percentage of residents dissatisfied with drinking water quality and supply, measured by the total number of complaints received about any of the following:</p> <ul style="list-style-type: none"> • Drinking water clarity • Drinking water taste • Drinking water odour • Drinking water pressure or flow • Continuity of supply • Council's response to any of these issues <p><i>A percentage has been used as the Council coverage (the number of connections) is below the per 1,000 mandatory measure</i></p> | <p>Achieved (Two complaints were received)</p> | <p>Does not exceed 2% of properties connected (or approximately two complaints for all connected properties)</p> | <p>Does not exceed 2% of properties connected (or approximately two complaints for all connected properties)</p> | <p>Does not exceed 2% of properties connected (or approximately two complaints for all connected properties)</p> | <p>Does not exceed 2% of properties connected (or approximately two complaints for all connected properties)</p> |
| <p>Average consumption of drinking water</p> | <p>Achieved</p> | <p>Less than</p> | <p>Less than</p> | <p>Less than</p> | <p>Less than</p> |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|--|------------------------------------|------------------------------------|------------------------------------|--|
| per day per resident, within the territorial authority district, as a measure of demand management | (280L/person/day in Waitangi; 220L/person/day in Kaingaroa) | 500L/person/day | 500L/person/day | 500L/person/day | 500L/person/day |

Funding impact statement

| Three waters supply & treatment - drinking water | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
|--|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Source of operating funding | | | | | | | | | | | |
| General rates, rates penalties | - | - | - | - | - | - | - | - | - | - | - |
| Targeted rates | 76 | 96 | 102 | 108 | 115 | 122 | 130 | 137 | 146 | 155 | 164 |
| Subsidies and grants for operating purposes | 207 | 214 | 220 | 226 | 233 | 239 | 245 | 251 | 258 | 264 | 271 |
| Fees and charges | - | - | - | - | - | - | - | - | - | - | - |
| Local Authorities fuel tax, fines, infringement fees, and other receipts | 9 | 9 | 9 | 9 | 10 | 10 | 10 | 10 | 11 | 11 | 11 |
| Total operating funding | 292 | 319 | 331 | 344 | 357 | 371 | 385 | 399 | 414 | 430 | 446 |
| Applications of operating funding | | | | | | | | | | | |
| Payments to staff and suppliers | 236 | 344 | 356 | 369 | 382 | 395 | 407 | 420 | 433 | 446 | 459 |
| Finance costs | - | - | - | - | - | - | - | - | - | - | - |
| Internal charges and overheads applied | 51 | 50 | 51 | 55 | 54 | 56 | 60 | 59 | 60 | 64 | 63 |
| Total application of operating funding | 287 | 394 | 407 | 424 | 436 | 451 | 467 | 479 | 493 | 510 | 522 |
| Surplus / (deficit) of operating funding | 5 | (75) | (76) | (80) | (79) | (80) | (82) | (80) | (79) | (80) | (76) |
| Source of capital funding | | | | | | | | | | | |
| Subsidies and grants for capital expenditure | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in debt | - | - | - | - | - | - | - | - | - | - | - |
| Total source of capital funding | - | - | - | - | - | - | - | - | - | - | - |
| Application of capital funding | | | | | | | | | | | |
| Capital expenditure | | | | | | | | | | | |
| -- to improve the level of service | - | - | - | - | - | - | - | - | - | - | - |
| -- to replace existing assets | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in reserves | 5 | (75) | (76) | (80) | (79) | (80) | (82) | (80) | (79) | (80) | (76) |
| Total applications of capital funding | 5 | (75) | (76) | (80) | (79) | (80) | (82) | (80) | (79) | (80) | (76) |
| Surplus / (deficit) of capital funding | (5) | 75 | 76 | 80 | 79 | 80 | 82 | 80 | 79 | 80 | 76 |
| Funding balance | - | - | - | - | - | - | - | - | - | - | - |
| <i>Excludes depreciation</i> | 48 | 64 | 54 | 54 | 68 | 67 | 67 | 66 | 66 | 73 | 73 |

There are four additional capital expenditure projects for this activity that have been excluded from the budget, due to the project not securing funding. This relates to upgrades to both Kaingaroa and Waitangi to meet regulatory requirements and identification of future alternative water sources.

Waitangi water supply reservoirs have been drained to low levels due to leaks and high demand in summer, which have required water conservation notices to be issued. Therefore, it is critical that issues of supply are addressed for Waitangi. This project, which is expected to cost \$13.9 million (allowing for additional connections) will see a new water source, new treatment plant, and additional storage. It will also include an extension of the network to Te One, which includes the Islands' main school and other key community facilities, who are currently not connected to a water scheme.

The reticulation network at Kaingaroa is now at the end of its useful life, resulting in frequent pipe breakages and leakages. Council plans to replace the reticulation to minimise the risk of leaks and ingress of contaminants and conserve the freshwater resource. Upgrades and repairs are also planned to enable compliance with current legislation and best practice, the project is estimated to cost \$7.9 million.

There is increased demand on our freshwater resources, arising from increased tourism and transient workers. In addition, Council desires increased resilience in the face of climate change. Some of our current water sources are not replenishing at sufficient levels to meet future demand and therefore, we need to understand our alternative drinking water sources options available to Council, to increase resilience for our schemes and water resources for the wider island, this project is expected to cost **\$5.2 million**.

The current works yard is no longer fit for purpose and is located in a low-lying coastal area, meaning it is more susceptible to weather events and sea level rise. The Council propose to construct a new purpose-built facility at a more suitable location in Waitangi, expected to cost **\$1.3 million**.

The expected capital expenditure associated with these projects are detailed below, cost estimates are allocated based on priority level. Council intends to approach the Government for additional support to assist with meeting our obligations with complying with current water regulation requirements.

| Unfunded capital costs | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Capital expenditure - to improve the level of service | 1,298 | 59 | 354 | 1,003 | - | 354 | 2,596 | 1,180 | 1,180 | 1,180 |
| Capital expenditure - to replace existing assets | 2,732 | 2,490 | 3,021 | 2,224 | 2,525 | 1,363 | 3,328 | 106 | 47 | 1,322 |
| Total unfunded capital expenditure | 4,030 | 2,549 | 3,375 | 3,227 | 2,525 | 1,717 | 5,924 | 1,286 | 1,227 | 2,502 |

Estimates exclude ongoing consequential operational expenditure and depreciation adjustments.

In addition to our unfunded capital expenditure, the Chatham Islands Council has also identified additional operational expenditure required to allow for proactive maintenance and technical support of our three water assets, along with support to transition to and comply with the Local Water Done Well plan. These estimated costs have been excluded from the budget, due to the lack of confirmation that additional funding will be made available as part of the annual crown appropriation. These additional operational costs over the next ten year, are estimated below.

| Unfunded operational costs | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Payments to staff and suppliers | 921 | 878 | 917 | 958 | 1,001 | 996 | 1,043 | 1,093 | 1,095 | 1,150 |

Levels of service: Provide a well-managed wastewater system to protect public health and the physical environment

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|---|---|---|---|---|
| <p>Percentage of residents who are very satisfied or satisfied with the wastewater system</p> <p><i>Measured by annual survey of residents. Satisfaction is defined as whether residents consider the wastewater system is appropriate for funding allocated</i></p> | <p>Not achieved (32% of those that expressed an opinion)</p> | 50% | 50% | 50% | 50% |
| <p>Percentage of resident dissatisfied with wastewater services, measured by the total number of complaints received about any of the following:</p> <ul style="list-style-type: none"> • Sewage odour • Wastewater system faults • Wastewater system blockages • Council's response to any of these issues as a measure of the wastewater system meeting community requirements <p><i>A percentage has been used as the Council coverage (the number of connections) is below the per 1,000 mandatory measure</i></p> | <p>Achieved (No complaints received)</p> | Does not exceed 2% of properties connected (or approximately two complaints for all connected properties) | Does not exceed 2% of properties connected (or approximately two complaints for all connected properties) | Does not exceed 2% of properties connected (or approximately two complaints for all connected properties) | Does not exceed 2% of properties connected (or approximately two complaints for all connected properties) |
| <p>Percentage of connections that experience dry-weather sewage overflows from the wastewater system, as a measure of the wastewater system meeting community requirements</p> <p><i>A percentage has been used as the Council coverage (the number of connections) is below the per 1,000</i></p> | <p>Achieved (No overflows or complaints)</p> | Does not exceed 2% of properties connected | Does not exceed 2% of properties connected | Does not exceed 2% of properties connected | Does not exceed 2% of properties connected |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|--|----------------------------|----------------------------|----------------------------|--|
| <i>mandatory measure</i> | | | | | |
| Number of reports of non-compliance with resource consent conditions, annually, for discharge from Council's wastewater system: <ul style="list-style-type: none"> • Abatement notices • Infringement notices • Enforcement orders • Convictions | Achieved (No notices or orders issued) | No more than two | No more than two | No more than two | No more than two |
| Percentage of reports of sewage overflows resulting from a blockage or other fault in the Council's wastewater system responded to in agreed timeframes. <p><i>Attendance time: the time from when the Council receives notification to when the service personnel reach the site does not exceed 12 hours</i></p> <p><i>Resolution time: the time from when the Council receives notification to when the service personnel confirms resolution of the blockage or other fault does not exceed 24 hours</i></p> | Achieved (No incidents occurred) | 100% | 100% | 100% | 100% |

Funding Impact statement

| Three waters supply & treatment - wastewater | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
|--|------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Source of operating funding | | | | | | | | | | | |
| General rates, rates penalties | - | - | - | - | - | - | - | - | - | - | - |
| Targeted rates | 71 | 109 | 116 | 123 | 131 | 139 | 147 | 156 | 166 | 176 | 186 |
| Subsidies and grants for operating purposes | 116 | 120 | 123 | 127 | 130 | 134 | 137 | 141 | 145 | 148 | 152 |
| Fees and charges | - | - | - | - | - | - | - | - | - | - | - |
| Local Authorities fuel tax, fines, infringement fees, and other receipts | 11 | 11 | 12 | 12 | 12 | 13 | 13 | 13 | 14 | 14 | 14 |
| Total operating funding | 199 | 240 | 251 | 262 | 274 | 285 | 297 | 310 | 324 | 338 | 352 |
| Applications of operating funding | | | | | | | | | | | |
| Payments to staff and suppliers | 130 | 197 | 204 | 212 | 219 | 226 | 234 | 241 | 248 | 255 | 263 |
| Finance costs | - | - | - | - | - | - | - | - | - | - | - |
| Internal charges and overheads applied | 65 | 64 | 65 | 71 | 69 | 71 | 76 | 75 | 77 | 82 | 81 |
| Total application of operating funding | 195 | 261 | 269 | 283 | 288 | 297 | 310 | 316 | 325 | 337 | 344 |
| Surplus / (deficit) of operating funding | 4 | (20) | (18) | (21) | (15) | (12) | (13) | (6) | (1) | 1 | 8 |
| Source of capital funding | | | | | | | | | | | |
| Subsidies and grants for capital expenditure | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in debt | - | - | - | - | - | - | - | - | - | - | - |
| Total source of capital funding | - | - | - | - | - | - | - | - | - | - | - |
| Application of capital funding | | | | | | | | | | | |
| Capital expenditure | | | | | | | | | | | |
| -- to improve the level of service | - | - | - | - | - | - | - | - | - | - | - |
| -- to replace existing assets | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in reserves | 4 | (20) | (18) | (21) | (15) | (12) | (13) | (6) | (1) | 1 | 8 |
| Total applications of capital funding | 4 | (20) | (18) | (21) | (15) | (12) | (13) | (6) | (1) | 1 | 8 |
| Surplus / (deficit) of capital funding | (4) | 20 | 18 | 21 | 15 | 12 | 13 | 6 | 1 | (1) | (8) |
| Funding balance | - | - | - | - | - | - | - | - | - | - | - |
| <i>Excludes depreciation</i> | 62 | 82 | 82 | 81 | 96 | 96 | 96 | 96 | 96 | 102 | 102 |

There are two additional capital expenditure projects for this activity that have been excluded from the budget, due to the project not securing funding. This relates to an upgrade of the Waitangi wastewater system and construction of a sludge receive and disposal facility to appropriately dispose of waste.

The Waitangi wastewater system is at the end of its useful life and the land application system (where we put the treated wastewater) requires extension. Without adequate treatment, there is a high risk of adverse public health and environmental outcomes. Council has a range of cost estimates for the upgrade, with the upper value of \$19.5 million assuming an increase in connections arising from increased demand from existing and future residential housing in Waitangi and Te One.

A sludge receive and disposal facility, with costs estimated at \$3.0 million, will create a facility for the community that collects, treats, and disposes of septic waste. Removing the current practice of burial in pits and providing an engineered, environmentally sustainable process. This is urgently required.

The expected capital expenditure associated with these projects are detailed below, cost estimates are allocated based on priority level. Council intends to approach the Government for additional support to assist with meeting our obligations with complying with current water regulation requirements.

| Unfunded capital costs | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|-----------|
| | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Capital expenditure - to improve the level of service | 118 | 177 | 1,534 | 708 | 71 | 2,431 | 71 | 71 | 71 | 71 |
| Capital expenditure - to replace existing assets | 1,487 | 2,803 | 2,667 | 5,109 | 1,770 | 850 | 1,788 | 490 | 118 | 18 |
| Total unfunded capital expenditure | 1,605 | 2,980 | 4,201 | 5,817 | 1,841 | 3,280 | 1,859 | 561 | 189 | 89 |

Estimates exclude ongoing consequential operational expenditure and depreciation adjustments.

Levels of service: Manage stormwater to minimise and manage flood events

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|--|--|--|--|--|
| The median response time to flooding events, measured from the time that Council receives notification to the time that the service personnel reach the site | Achieved (No discharge notices were issued, or other noncompliance events) | No more than two hours | No more than two hours | No more than two hours | No more than two hours |
| Number of reports of non-compliance with resource consent conditions, annually, for discharge from Council's storm water system measured by the number of: <ul style="list-style-type: none"> Abatement notices Infringement notices Enforcement orders | Achieved | Three or fewer reports of non-compliance | Three or fewer reports of non-compliance | Three or fewer reports of non-compliance | Three or fewer reports of non-compliance |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|---|--|--|--|--|
| <ul style="list-style-type: none"> Convictions | | | | | |
| <p>Percentage of properties connected from which complaints received about the performance of storm water management, indicating residents' satisfaction</p> <p><i>A percentage has been used as the Council coverage (the number of connections) is below the per 1,000 mandatory measure</i></p> | <p>Achieved</p> <p>(No complaints received)</p> | Not exceeding 2% of properties connected | Not exceeding 2% of properties connected | Not exceeding 2% of properties connected | Not exceeding 2% of properties connected |
| Number of flooding events | <p>Achieved</p> <p>(No flooding events occurred)</p> | Not exceeding two per year | Not exceeding two per year | Not exceeding two per year | Not exceeding two per year |
| <p>Percentage of habitable properties affected by each flooding</p> <p><i>A percentage has been used as the Council coverage (the number of connections) is below the per 1,000 mandatory measure</i></p> | <p>Achieved</p> <p>(No flooding events)</p> | Not exceeding 2% of properties connected | Not exceeding 2% of properties connected | Not exceeding 2% of properties connected | Not exceeding 2% of properties connected |

Waste management and minimisation

Waste management facilities provide refuse and recycling services to protect the health of our communities and our environment.

Council's priority activities and our rationale for providing these services

Our priority activities include:

- Provide a good waste management service, that meets community expectations
- Reduced environmental impacts (such as lowering greenhouse gas emissions) through improved waste management strategies and processes
- Minimising waste going to landfill and increase the amount that is recycled.

Contribution to community outcomes

Rubbish and recycling collection services ensure our environment is functional, pleasant and safe. We promote the sustainable use of resources and provide sustainable alternatives to landfill disposal.

We protect our natural environment by providing waste disposal services for our communities and minimising the impact of climate change on our environment. We reduce the impact of landfill disposal by providing other services to divert waste from landfill and reduce waste production.

Our facilities comply with resource consents, and we ensure that we have operational plans for our services and site management plans for the facilities we operate.

Negative effects

Leachate from old and operational landfills could have a significantly negative impact on our land and water. Such effects include polluting the natural environment and entering natural watercourses.

Odour, dust and windblown litter from operational landfills can cause problems with smell, vermin and birds if the landfill is inadequately managed.

Historically, waste has been disposed at non-landfill sites, but that practice is changing as the new waste infrastructure becomes commissioned.

Mitigation is primarily through monitoring of conditions relating to the operation of our transfer station, landfill and recycling network.

Levels of service: Provide efficient and effective waste minimisation activities and services

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---|---------------------------------|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Amount of waste going to landfill <i>Benchmark volume of 300 tonne established in 2022/23</i> | Achieved (299 tonnes) | Less than 300 tonnes | Less than 300 tonnes | Less than 300 tonnes | Less than 300 tonnes |
| Percentage of total waste diverted from landfills through recycling collection. | New target | Establish baseline | Increase of 1% on baseline annually | Increase of 1% on baseline annually | Increase of 1% on baseline annually |
| Frequency of information about waste management and minimisation activities and projects circulated in our monthly Council e-newsletter, the Chatham Islands | Achieved | Monthly | Monthly | Monthly | Monthly |
| Availability of staff at the Te One transfer station to help residents unload rubbish and educate them on the significance of separating recyclables during opening hours | New measure | 100% | 100% | 100% | 100% |
| Percentage of landfill activities, facilities and services managed to comply with resource consent conditions, landfill management plans (developed in partnership with Imi and Iwi), and appropriate | Achieved | 100% | 100% | 100% | 100% |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---|--|----------------------------|----------------------------|----------------------------|---|
| legislative requirements | | | | | |
| Percentage of potential or actual waste-related non-compliance issues responded to within five working days | Achieved (No issues noted) | 100% | 100% | 100% | 100% |
| Percentage of times Council staff provide response to written requests or complaints regarding waste management within five working days of receipt | Achieved (Three requests or complaints received) | 95% | 95% | 95% | 95% |
| Percentage of residents very satisfied or satisfied with the landfill and recycling service and ease of use <i>Measured by annual survey of residents. Satisfaction is defined as whether residents consider the landfill and recycling service is appropriate for funding allocated</i> | Not achieved (56%) | 60% | 60% | 60% | 60% |

Funding impact statement

| Waste management & minimisation | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
|--|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Source of operating funding | | | | | | | | | | | |
| General rates, rates penalties | - | - | - | - | - | - | - | - | - | - | - |
| Targeted rates | 100 | 99 | 105 | 112 | 119 | 126 | 134 | 142 | 150 | 160 | 169 |
| Subsidies and grants for operating purposes | 643 | 663 | 682 | 702 | 721 | 740 | 760 | 779 | 799 | 819 | 839 |
| Fees and charges | 2 | - | - | - | - | - | - | - | - | - | - |
| Local Authorities fuel tax, fines, infringement fees, and other receipts | 13 | 12 | 13 | 13 | 13 | 13 | 14 | 14 | 15 | 15 | 15 |
| Total operating funding | 758 | 775 | 800 | 826 | 853 | 879 | 908 | 935 | 964 | 994 | 1,023 |
| Applications of operating funding | | | | | | | | | | | |
| Payments to staff and suppliers | 727 | 754 | 780 | 810 | 839 | 868 | 896 | 925 | 954 | 983 | 1,013 |
| Finance costs | - | - | - | - | - | - | - | - | - | - | - |
| Internal charges and overheads applied | 37 | 36 | 37 | 40 | 39 | 40 | 43 | 42 | 43 | 46 | 46 |
| Total application of operating funding | 764 | 790 | 817 | 850 | 878 | 908 | 939 | 967 | 997 | 1,029 | 1,059 |
| Surplus / (deficit) of operating funding | (5) | (15) | (17) | (23) | (25) | (29) | (31) | (32) | (34) | (35) | (35) |
| Source of capital funding | | | | | | | | | | | |
| Subsidies and grants for capital expenditure | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in debt | - | - | - | - | - | - | - | - | - | - | - |
| Total source of capital funding | - | - | - | - | - | - | - | - | - | - | - |
| Application of capital funding | | | | | | | | | | | |
| Capital expenditure | | | | | | | | | | | |
| -- to improve the level of service | - | - | - | - | - | - | - | - | - | - | - |
| -- to replace existing assets | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in reserves | (5) | (15) | (17) | (23) | (25) | (29) | (31) | (32) | (34) | (35) | (35) |
| Total applications of capital funding | (5) | (15) | (17) | (23) | (25) | (29) | (31) | (32) | (34) | (35) | (35) |
| Surplus / (deficit) of capital funding | 5 | 15 | 17 | 23 | 25 | 29 | 31 | 32 | 34 | 35 | 35 |
| Funding balance | - | - | - | - | - | - | - | - | - | - | - |
| <i>Excludes depreciation</i> | 120 | 175 | 175 | 167 | 171 | 159 | 159 | 156 | 156 | 162 | 161 |

There is one additional capital expenditure project for this activity that has been excluded from the budget, due to the project not securing funding. This relates to the construction of a new landfill space. Landfills are built in a series of stages. It is anticipated that another stage will be required in 2030/31.

| Unfunded costs | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Capital expenditure - to replace existing assets | | | | | | | 925 | | | |

Estimates exclude ongoing consequential operational expenditure and depreciation adjustments.

Community services and emergency management

Council provides facilities for the enjoyment and use of our community, including community housing, parks and reserves, sports fields and emergency management services. These contribute to the development of a healthy, active, functioning community.

Council also seeks to provide an efficient and effective system of emergency management response and planning that minimises the potential effect of all hazards on the community and the environment.

Council's priority activities and our rationale for providing these services

Our priority activities include:

- Providing good community facilities, that meets community needs and expectations
- Promotion of community development through recreation, the arts, and encouraging the sharing of our heritage
- Staff and volunteers are trained and feel ready to respond to an emergency event
- More emergency management communication
- Emergency response facility – no targets set, paused pending funding becoming available.

Contribution to community outcomes

Community services contribute to the resilient community and embracing diversity community outcomes by providing material and experiences to increase local historical/cultural information and connection.

We provide community open spaces and facilities enabling our community to participate in recreational and cultural opportunities. The library provides resources that support educational, creative, cultural and business activities.

We provide financial assistance to community groups to support cultural, heritage and other benefits within our community.

Areas of cultural significance are managed and protected. Our community is aware and involved in conservation and restoration work.

We provide facilities that enable communities to celebrate their heritage and creativity. Cemeteries provide a location for remembrance.

Emergency management services also contribute to the resilient community, sustainable action and building growth community outcomes by promoting readiness and preparedness through community education and providing suitable response training for staff and volunteers.

Our Civil Defence and Emergency Management system promotes safety of people and a resilient community.

Council can respond and recover from the impact of emergency events. Ensuring appropriate strategies are in place to manage and reduce the impact of harm to the environment when an emergency event occurs.

Fishing and tourism contribute a large amount to our Islands' economic prosperity. Supporting the economic development, sustainability and resilience of these activities will be key to our Islands' growth and recovery after any emergency event.

Negative effects

Council housing and community buildings require ongoing maintenance, which, if not performed, could result in significant degradation of the assets.

Many activities are highly dependent upon the contributions made by volunteers. Council will seek to assist organisations to recruit and retain volunteers, to provide appropriate training, and to ensure that the volunteer experience is a positive and rewarding one.

Levels of service: Provide services to the communities we serve, including library and dog and animal control services

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|---|-------------------------|-------------------------|-------------------------|-------------------------------------|
| <p>Percentage of residents very satisfied or satisfied with community services, including library and dog and animal control services</p> <p><i>Measured by annual survey of residents. Satisfaction is defined as whether residents consider the community services are appropriate for funding allocated</i></p> | <p>Not achieved</p> <p>(58%)</p> | 70% | 70% | 70% | 70% |
| <p>Percentage of complaints about operations and facilities investigated within one working day, with major faults remedied within 24 hours of notification</p> | <p>Measure amended</p> <p>(Previous measure related to all complaints and was not achieved)</p> <p>(37%)</p> | 100% | 100% | 100% | 100% |
| <p>Percentage of residents able to identify at least three key services provided by Council, e.g. dog/animal control, library and recreational services</p> <p><i>Measured by annual survey of residents</i></p> | <p>Achieved</p> <p>(75%)</p> | 75% | 75% | 75% | 75% |

Levels of service: Provide information and advisory services to enable people to understand risks and make informed decisions, and enable emergency management as required

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---|--|-------------------------|-------------------------|-------------------------|-------------------------------------|
| Frequency of information about emergency management circulated in our monthly Council e-newsletter, the Chatham Islands | Achieved | At least quarterly | At least quarterly | At least quarterly | At least quarterly |
| Percentage of residents who feel prepared or well prepared and know what to do in an emergency <i>Measured by annual survey of residents</i> | Not achieved (74%) Note: target was 75% in 2022/23) | 70% | 70% | 70% | 70% |
| Percentage of staff and volunteers who feel confident in relation to readiness to respond to an emergency event <i>Measured by annual staff and emergency response volunteers survey</i> | New target | 70% | 70% | 70% | 70% |

Funding impact statement

| Community development & emergency response | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Source of operating funding | | | | | | | | | | | |
| General rates, rates penalties | 334 | 381 | 406 | 431 | 458 | 487 | 516 | 548 | 581 | 616 | 653 |
| Targeted rates | - | - | - | - | - | - | - | - | - | - | - |
| Subsidies and grants for operating purposes | 683 | 612 | 629 | 647 | 665 | 682 | 701 | 718 | 737 | 756 | 774 |
| Fees and charges | 53 | - | - | - | - | - | - | - | - | - | - |
| Local Authorities fuel tax, fines, infringement fees, and other receipts | 277 | 315 | 325 | 334 | 343 | 442 | 361 | 371 | 380 | 390 | 400 |
| Total operating funding | 1,347 | 1,308 | 1,359 | 1,412 | 1,466 | 1,611 | 1,578 | 1,637 | 1,698 | 1,762 | 1,826 |
| Applications of operating funding | | | | | | | | | | | |
| Payments to staff and suppliers | 643 | 870 | 894 | 920 | 945 | 970 | 996 | 1,022 | 1,048 | 1,075 | 1,101 |
| Finance costs | 3 | - | - | - | - | - | - | - | - | - | - |
| Internal charges and overheads applied | 676 | 663 | 681 | 734 | 722 | 741 | 794 | 781 | 802 | 855 | 843 |
| Total application of operating funding | 1,322 | 1,533 | 1,575 | 1,654 | 1,667 | 1,711 | 1,790 | 1,803 | 1,850 | 1,930 | 1,944 |
| Surplus / (deficit) of operating funding | 25 | (225) | (216) | (242) | (200) | (100) | (212) | (166) | (152) | (168) | (118) |
| Source of capital funding | | | | | | | | | | | |
| Subsidies and grants for capital expenditure | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in debt | (19) | (22) | (5) | - | - | - | - | - | - | - | - |
| Total source of capital funding | (19) | (22) | (5) | - | - | - | - | - | - | - | - |
| Application of capital funding | | | | | | | | | | | |
| Capital expenditure | | | | | | | | | | | |
| -- to improve the level of service | - | - | - | - | - | - | - | - | - | - | - |
| -- to replace existing assets | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in reserves | 6 | (247) | (221) | (242) | (200) | (100) | (212) | (166) | (152) | (168) | (118) |
| Total applications of capital funding | 6 | (247) | (221) | (242) | (200) | (100) | (212) | (166) | (152) | (168) | (118) |
| Surplus / (deficit) of capital funding | (25) | 225 | 216 | 242 | 200 | 100 | 212 | 166 | 152 | 168 | 118 |
| Funding balance | - | - | - | - | - | - | - | - | - | - | - |
| <i>Excludes depreciation</i> | 44 | 87 | 84 | 84 | 83 | 80 | 78 | 77 | 76 | 70 | 70 |

There are no additional unfunded operational or capital expenditure items for this group of activities.

Environmental management, protection and monitoring

Council has responsibilities under legislation to safeguard public health, safety, and welfare.

Biodiversity, biosecurity and regulatory activities, such as the identification and management of pests, issue of consents, the enforcement of bylaws, and the provision of liquor licenses are undertaken for the benefit of our communities and to ensure that everyone enjoys our Islands.

The Chatham Islands' isolation has meant that many of the animal and plant pests common in New Zealand are not present on the Islands. We are also fortunate to have many indigenous plants and native animals on the Islands. Many of our flora and fauna species and ecosystems are endemic to the Chatham Islands and if adversely affected by pests, could disappear from their natural habitats.

Council's priority activities and our rationale for providing these services

Our priority activities include:

- Effective pest management control of identified pest species including Swan, Canada geese and feral cattle
- Aim to implement government direction in relation to essential freshwater
- To maintain an adequate monitoring network for water quantity and quantity
- For water quantity and quantity information to be easily accessible.

Contribution to community outcomes

This work contributes to our sustainable action and embracing diversity community outcomes by planning, promoting, regulating and monitoring the use and development of our natural and physical resources, considering the impacts of climate change and aiming to retain our unique island culture, heritage and biodiversity. We work with imi and iwi to ensure that

appropriate regard is made to miheke/taonga and to retain our unique island biodiversity.

These activities also contribute to our building growth community outcome. We work with landowners to enhance the prosperity and security of their land by developing plans to managing pests that threaten our environment. By protecting our unique environment, we will provide future opportunities for growth within our community, particularly related to tourism.

Our unique ecosystems, landscapes and indigenous biodiversity are valued and stewardship/t'chiekitanga/kaitiakitanga exercised to safeguard our environment for future generations.

We monitor and investigate the state of our environment and identify trends, risks, and pressures our environment faces. Particularly in relation to land, soils and water. We use this information to make better decisions in our planning. We work to educate people and provide information to enable more sustainable and resilient living.

Our planning framework ensures that identified sites of importance including imi and iwi sites of cultural significance, are considered when planning decisions are made. We work with landowners to enhance biodiversity, helping to protect our natural heritage values.

Effective resource planning processes help ensure appropriate and efficient infrastructure and resources are available to meet the demands of our communities, both now and for future generations.

Compliance monitoring can ensure fair and equal opportunities for all. We actively encourage people to adopt best practice in relation to their use of land and water resources.

We develop policies and plans that promote sustainable management of our natural and physical resources and minimise the impact of climate change on our environment.

We monitor and regulate activities that could, over time, put pressure on our environment and resources, and take preventative action through education and enforcement.

We provide licenses to ensure alcohol sales and consumption are safe, and control dogs and stock, so as not to adversely affect our community's quality of life.

Areas of cultural significance are managed and protected through our regulatory practices.

Our regulatory practices are managed in a manner that contributes to the economic well-being in our community.

Environmental protection

Levels of service: Work in partnership with the community to protect the Islands from environmental and economic damage from pest species

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---|---------------------------|-------------------------|-------------------------|-------------------------|--|
| Review and update Pest Management strategy and Predator Free 2050 Strategy to identify location sites of interest and species for pest management work <i>To be undertaken in partnership with Imi, Iwi and the Department of Conservation</i> | New measure | By 30 June 2025 | N/A | N/A | Review and update as necessary, expected every three years |

We have a dog and stock control officer, who assists with educating owners on appropriate housing of animals, limiting negative effects on native fauna.

Negative effects

The control of pest animals and plants requires a range of methods including pesticides. Some people object to any form of animal control especially for game animals. There may also be some objections to the use of chemicals to control pest plants and animals.

Furthermore, if not contained, the introduction and spread of new plant or animal pests pose significant risks for the Chatham Islands.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------------------|
| Frequency of environmental awareness programmes, community engagement events or community messages on our website or Facebook page to educate and involve the community in environmental protection efforts, including the importance of not bringing pests to the Island | Achieved | At least quarterly | At least quarterly | At least quarterly | At least quarterly |

Levels of service: Partner with imi, iwi and engage with the community to implement the government direction in relation to essential freshwater

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|---------------------------|-------------------------|---|-------------------------|-------------------------------------|
| Establish priorities for changes to the regulatory framework. To be established in partnership with imi and iwi. | New measure | By 30 June 2025 | N/A | N/A | Review and update as necessary |
| Present priorities for changes to the regulatory framework (identified above) to Government for approval | New measure | N/A | To be set once the priorities for the regulatory framework have been established. Expected by 30 June | N/A | Review and update as necessary |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|---------|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------------------|
| | | | 2026. | | |

Levels of service: Monitor and provide accurate and timely water quality and quantity data, for use by the community and decision-makers

Council has reviewed its performance framework with a focus on setting strategic targets. Previously, our performance measures and targets were more operational. These operational targets are expected to be incorporated into work programme targets. Council considers there will be no change in the levels of service performed, rather there has been a change in focus of the performance targets and measures to better reflect Council's priorities for each group of activities.

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|--|--|-------------------------|-------------------------|-------------------------------------|
| Review and confirm priority sites for river flow, lagoon levels and climate rainfall measurements and water quality site network, install monitoring equipment if required | Achieved - in relation to previously identified sites | By 30 June 2025 | N/A | N/A | Review as necessary |
| Maintain water quantity (river flow, lagoon levels and climate rainfall) telemetered sites and quality sites | Achieved | N/A - existing sites will continue to be maintained while the review is being undertaken and as the transition to a new set of sites occurs. | At least twice a year | At least twice a year | At least twice a year |
| Report sampled water quantity (river flow, lagoon levels and climate rainfall) and quality information from | Refocused target | Annually | Annually | Annually | Annually |

| Measure | Previous result (2022/23) | 2024/25 target (Year 1) | 2025/26 target (Year 2) | 2026/27 target (Year 3) | 2027/28-2033/34 target (Years 4-10) |
|--|--|------------------------------------|------------------------------------|------------------------------------|--|
| <p>priority sites (identified above) on:</p> <ul style="list-style-type: none"> • The Chatham Islands Council website and • National LAWA (Land, Air, Water Aotearoa) website – once reporting ability is available. | <p>Water quality and quantity monitoring and reporting achieved in relation to set measures and targets.</p> | | | | |

Funding impact statement

| Environmental protection, compliance & planning | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Source of operating funding | | | | | | | | | | | |
| General rates, rates penalties | - | - | - | - | - | - | - | - | - | - | - |
| Targeted rates | - | - | - | - | - | - | - | - | - | - | - |
| Subsidies and grants for operating purposes | 1,216 | 1,301 | 1,339 | 1,377 | 1,415 | 1,452 | 1,491 | 1,529 | 1,568 | 1,607 | 1,648 |
| Fees and charges | 41 | 45 | 46 | 48 | 49 | 50 | 52 | 53 | 54 | 56 | 57 |
| Local Authorities fuel tax, fines, infringement fees, and other receipts | 72 | 98 | 102 | 106 | 108 | 113 | 113 | 117 | 122 | 123 | 128 |
| Total operating funding | 1,328 | 1,445 | 1,487 | 1,531 | 1,572 | 1,615 | 1,655 | 1,699 | 1,744 | 1,786 | 1,832 |
| Applications of operating funding | | | | | | | | | | | |
| Payments to staff and suppliers | 1,023 | 1,144 | 1,054 | 1,016 | 1,045 | 1,072 | 1,101 | 1,129 | 1,157 | 1,188 | 1,218 |
| Finance costs | - | - | - | - | - | - | - | - | - | - | - |
| Internal charges and overheads applied | 321 | 314 | 323 | 348 | 342 | 352 | 377 | 371 | 380 | 406 | 400 |
| Total application of operating funding | 1,344 | 1,458 | 1,377 | 1,364 | 1,387 | 1,424 | 1,478 | 1,500 | 1,537 | 1,594 | 1,618 |
| Surplus / (deficit) of operating funding | (15) | (14) | 110 | 166 | 185 | 192 | 177 | 199 | 206 | 193 | 214 |
| Source of capital funding | | | | | | | | | | | |
| Subsidies and grants for capital expenditure | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in debt | - | - | - | - | - | - | - | - | - | - | - |
| Total source of capital funding | - | - | - | - | - | - | - | - | - | - | - |
| Application of capital funding | | | | | | | | | | | |
| Capital expenditure | | | | | | | | | | | |
| -- to improve the level of service | - | - | - | - | - | - | - | - | - | - | - |
| -- to replace existing assets | - | - | - | - | - | - | - | - | - | - | - |
| Increase / (decrease) in reserves | (15) | (14) | 110 | 166 | 185 | 192 | 177 | 199 | 206 | 193 | 214 |
| Total applications of capital funding | (15) | (14) | 110 | 166 | 185 | 192 | 177 | 199 | 206 | 193 | 214 |
| Surplus / (deficit) of capital funding | 15 | 14 | (110) | (166) | (185) | (192) | (177) | (199) | (206) | (193) | (214) |
| Funding balance | - | - | - | - | - | - | - | - | - | - | - |
| <i>Excludes depreciation</i> | 7 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |

The Chatham Islands Council has also identified the need to make reductions in expenditure, to manage the Council's finances prudently. For a positive impact on our average annual cash movement, Council estimates a reduction in expenditure of at least \$200,000 will be required for the first year of the Long-Term Plan, with additional cost efficiencies to be found in the following years. Our contract with our Regional Council partners is currently being reviewed, and it is believed we can reduce the scope of some pest management services while also utilising other partnerships to achieve a manageable reduction in service, that will not significantly impact the service Council provides to the Community. The total reduction in expenditure over the next ten year, is estimated below.

| Unfunded operational costs | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 |
| | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 | \$000 |
| Payments to staff and suppliers | 209 | 340 | 416 | 428 | 439 | 451 | 462 | 474 | 486 | 498 |

Council funding impact statement

The Local Government Act 2002 and the Local Government (Financial Reporting and Prudence) Regulations 2014 require the Council to adopt a funding impact statement for both the Council and each group of activities. The funding impact statement must identify: the sources of funding to be used; the amount of funds expected to be produced from each source; and how the funds are to be applied.

The timing of the recognition of income and expenditure in the funding impact statements is consistent with the forecast financial statements. However, transactions with no funding impact, such as depreciation, have been removed. The regulations also require each funding impact statement for a group of activities to disclose internal charges and cost allocation and not eliminate these as required by NZ GAAP. Funding impact statements for each group of activities are disclosed in the following pages.

| | Annual Plan 2023/24 \$000 | 2024/25 \$000 | 2025/26 \$000 | 2026/27 \$000 | 2027/28 \$000 | 2028/29 \$000 | 2029/30 \$000 | 2030/31 \$000 | 2031/32 \$000 | 2032/33 \$000 | 2033/34 \$000 |
|--|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Source of operating funding | | | | | | | | | | | |
| General rates, rates penalties | 358 | 381 | 406 | 431 | 458 | 487 | 516 | 548 | 581 | 616 | 653 |
| Targeted rates | 400 | 436 | 463 | 493 | 524 | 556 | 590 | 626 | 664 | 704 | 746 |
| Subsidies and grants for operating purposes | 6,520 | 6,048 | 6,311 | 6,439 | 6,580 | 6,859 | 6,988 | 7,129 | 7,426 | 7,560 | 7,707 |
| Fees and charges | 43 | 65 | 67 | 69 | 71 | 72 | 75 | 77 | 78 | 81 | 82 |
| Interest and dividends from investments | 16 | 42 | 44 | 45 | 46 | 48 | 49 | 51 | 52 | 54 | 55 |
| Local Authorities fuel tax, fines, infringement fees, and other receipts | 568 | 618 | 639 | 654 | 672 | 784 | 708 | 726 | 750 | 764 | 784 |
| Total operating funding | 7,905 | 7,590 | 7,930 | 8,131 | 8,351 | 8,806 | 8,926 | 9,157 | 9,551 | 9,779 | 10,027 |
| Applications of operating funding | | | | | | | | | | | |
| Payments to staff and suppliers | 7,543 | 7,453 | 7,653 | 7,858 | 7,945 | 8,287 | 8,556 | 8,642 | 9,003 | 9,276 | 9,372 |
| Finance costs | 3 | 1 | - | - | - | - | - | - | - | - | - |
| Total application of operating funding | 7,546 | 7,454 | 7,653 | 7,858 | 7,945 | 8,287 | 8,556 | 8,642 | 9,003 | 9,276 | 9,372 |
| Surplus / (deficit) of operating funding | 359 | 136 | 277 | 273 | 406 | 519 | 370 | 515 | 548 | 503 | 655 |
| Source of capital funding | | | | | | | | | | | |
| Subsidies and grants for capital expenditure | 3,314 | 3,298 | 3,586 | 2,847 | 2,684 | 3,864 | 3,654 | 2,921 | 4,188 | 3,927 | 3,179 |
| Increase / (decrease) in debt | (19) | (22) | (5) | - | - | - | - | - | - | - | - |
| Total source of capital funding | 3,295 | 3,276 | 3,581 | 2,847 | 2,684 | 3,864 | 3,654 | 2,921 | 4,188 | 3,927 | 3,179 |
| Application of capital funding | | | | | | | | | | | |
| Capital expenditure | | | | | | | | | | | |
| -- to improve the level of service | 1,420 | 1,045 | 350 | 93 | 101 | 326 | 724 | 101 | 326 | 724 | 101 |
| -- to replace existing assets | 2,822 | 2,703 | 3,725 | 3,142 | 2,949 | 4,065 | 3,428 | 3,218 | 4,433 | 3,739 | 3,512 |
| Increase / (decrease) in reserves | (588) | (336) | (217) | (115) | 40 | (8) | (128) | 117 | (23) | (33) | 221 |
| Total applications of capital funding | 3,654 | 3,412 | 3,858 | 3,120 | 3,090 | 4,383 | 4,024 | 3,436 | 4,736 | 4,430 | 3,834 |
| Surplus / (deficit) of capital funding | (359) | (136) | (277) | (273) | (406) | (519) | (370) | (515) | (548) | (503) | (655) |
| Funding balance | - | - | - | - | - | - | - | - | - | - | - |

Details on how activities are funded and the rationale for each funding source selected are given in the revenue and financing policy. Examples of the impact of the rating proposals for the first year covered by the Long-

Term Plan on the rates assessed on different categories of rateable land are also included.

| Reconciliation of operating funding to statement of comprehensive revenue and expense | | | | | | | | | | | |
|--|--------------|--------------|--------------|------------|------------|--------------|--------------|------------|--------------|--------------|------------|
| Surplus / (deficit) of operating funding | 359 | 136 | 277 | 273 | 406 | 519 | 370 | 515 | 548 | 503 | 655 |
| Subsidies and grants for capital expenditure | 3,314 | 3,298 | 3,586 | 2,847 | 2,684 | 3,864 | 3,654 | 2,921 | 4,188 | 3,927 | 3,179 |
| Depreciation | (2,484) | (2,210) | (2,315) | (2,360) | (2,552) | (2,638) | (2,747) | (2,822) | (2,812) | (3,156) | (3,241) |
| Surplus/(deficit) before taxation per statement of comprehensive revenue and expense | 1,189 | 1,224 | 1,548 | 760 | 538 | 1,745 | 1,277 | 614 | 1,924 | 1,274 | 593 |

There are several capital expenditure projects that have been excluded from the budget, due to the project not securing funding. This relates to three water infrastructure upgrades, expansion of our waste management facilities and structural repairs to the Kaingaroa wharf.

In addition to our unfunded capital expenditure, the Chatham Islands Council has also identified additional operational expenditure required to allow for proactive maintenance and technical support of our three water assets, along with support to transition to and comply with the Local Water Done Well plan and further cost savings required to manage our budget prudently. These estimated costs have been excluded from the budget, but will advocate for additional funding to be made available as part of the annual crown appropriation.

These additional capital and operational costs over the next ten years, are estimated and separately disclosed at an individual activity level with each activity Funding Impact Statement, and collectively after the financial statements.

Our finances



Our financial information

Responsibility for financial statements

Councilors and management of Chatham Islands Council accept responsibility for the preparation of the prospective financial statements, the statement of service performance and the judgements and assumptions used in this Long-Term Plan.

They also accept responsibility for establishing and maintaining a system of internal control designed to provide reasonable assurance as to the integrity and reliability of financial and service performance reporting data.

In the opinion of the Councilors and management of Chatham Islands Council, appropriate assumptions have been used to produce these prospective financial and service statements and all disclosure requirements have been met.

The forecast Financial Statements of this Long-Term Plan provide information on the budgets for all of Council and are comprised of:

Our significant forecasting assumptions

The key assumptions made in compiling our financial information are detailed here, including price level adjusters and assumptions with high volatility and an assessment of how the instability will impact on the financial information.

Our prospective financial statements

These statements include the Prospective Statement of Comprehensive Revenue and Expense, Prospective Statement of Financial Position, Prospective Statement of Changes in Equity and Prospective Statement of Cash Flows for Council, which are in all annual plans and reports.

The purpose of these prospective Financial Statements is:

- To provide integrated decision-making and coordination of the resources of the local authority

- Contribute to the accountability of the local authority to the community and to provide a long-term focus for the activities of the Council. The information in these statements may not be appropriate for purposes other than those described.

Actual financial results are likely to vary from that forecast within this Plan. These Prospective Financial Statements are a forecast for 10 years, based on the latest information and knowledge at hand, and in conjunction with assumptions considered appropriate at that time.

A new Long-Term Plan will be produced in three years' time. Annual Plans will be produced for the intervening financial years.

Accounting policies

Accounting policies are compliant with International Public Sector Accounting Standards for Public Benefit Entities (PBE IPSAS) and provide details on how Council applies the standards to the Prospective Financial Statements.

Reserve funds

Reserve Funds detail the funds the Council holds for specific purposes and how the balances of the funds are expected to move between years one and ten of this Plan.

Long-Term Plan disclosure statement

A disclosure statement is required that identifies Council's planned financial performance in relation to various benchmarks, enabling an assessment of whether Council is prudently managing its revenues, expenses, assets and liabilities.

Statement concerning balancing the budget

Assuming Council is able to both reduce expenditure through cost savings and increase income through rating increases, Council will be able to achieve a balanced budget for all years of the Long-Term Plan, with an after-tax surplus forecast for each year.

Although not confirmed, Council assumes future Crown contributions will cover all operating requirements, with the next funding review expected in 2024/25. If funding is below expectation, expenditure will be reduced.

Financial assumptions

Revenue assumptions

Annual Crown contribution

The Council in recent years received an annual appropriation of \$4.2 million as a contribution to the cost of Council's statutory responsibilities.

The New Zealand Government receives substantial fiscal benefits from the inclusion of the Chatham Islands within New Zealand's exclusive economic zone. Therefore, there remains strategic advantages to providing ongoing financial support to the Chatham Islands Council, given the resident population base is insufficient to cover Council's expected operational costs.

The Crown has agreed to provide ongoing operational support to the Chatham Islands Council as part of a Deed of Funding. Currently, annual funding is confirmed in May each year as part of the annual appropriation process.

The Chatham Islands Council has indicated to Central Government that the historic annual appropriation is insufficient to meet our statutory obligations. While there is general support for increasing funding to our community, increased funding has not yet eventuated. The Council's approach to prudently managing finances is for expenditure to match expected funding allocations, meaning some areas will not comply with legislative requirements, as Council cannot afford to meet the additional costs of compliance.

To ensure an appropriate level of transparency, Council has elected to

estimate the additional costs of compliance as separate 'unbudgeted' line items in the financial statements.

It is assumed the annual appropriation will be in line with historic levels, increased annually by an inflationary adjustment. Actual support will not be confirmed until May, and is subject to a high level of uncertainty.

The contribution provided by the Crown is reviewed for appropriateness every three years, with the next review expected in 2024/25. These reviews have traditionally highlighted the lack of investment in capital infrastructure and the Council's non-compliance with areas of legislation, additional funding was recommended, with unsuccessful results.

Over time, it is assumed the annual appropriation will be increased to support an asset replacement programme and any additional costs associated with meeting operational costs arising from either new projects being implemented or new costs of compliance. If the additional level of funding is not received, all unfunded projects will be deferred.

NZ Transport Agency Waka Kotahi subsidy rates

The Funding Assistance Rate provided by the NZ Transport Agency (NZTA) is currently set at 88% of total roading expenditure. It is assumed this financial subsidy rate will remain constant over the 10-year period of the Long-Term Plan.

The difference between roading expenditure and the NZTA grant is expected to be funded from targeted rates and allocated general funds (which includes the annual Crown contribution).

A programme of work for the three-year period ending 2027 has been submitted to the NZTA for approval, expected to remain under consideration until August 2024. We have assumed the full programme of works will be approved with a consistent rate of assistance. Capital works that are to improve the level of service as opposed to replacing existing

assets, are subject to a higher level of uncertainty associated with the NZTA grant being approved. An adjustment to reflect this uncertainty has not been factored into the financial forecast. Variations in the NZTA approved programme or level of subsidy may require Council to review and an amendment to its roading programme.

The approved NZTA programme will cover a three-year period cycle, any approved funds unspent at the end of a year, will be carried across to the next year.

Rating base and remissions

The number of rateable properties is not expected to change significantly over the 10-year period.

Council assumes any ratepayer financial hardships will be managed through the rates remission and postponement policy.

Expected interest rates on investments

Interest received is based on average cashflows over the 10-year period, applied to the expected Business and Economic Research Limited (BERL) 90-day interest rates. It is assumed the Crown contribution will be paid annually in advance allowing a small interest amount to be received.

Expenditure assumptions

Future price changes

Except for roading operating and capital expenditure inflation rates, future price level adjustments are based on those recommended to Local Government by BERL.

In addition to the BERL adjustments, to incorporate the higher costs of living and transportation impacts, including transportation certainty, an additional adjustment of 0.75% to inflationary movements has been made. The

Chatham Islands' isolation and small population result in a higher cost of living overall compared with the rest of New Zealand. Freight and Council dues inflate the cost of all goods imported from the mainland, and the small, remote consumer base drives up the cost of utilities and other services like air transport.

The roading operating and capital expenditure inflation rates are based on drivers used as part of the NZTA roading submission process. No further adjustment are made, as the majority of materials are sourced on the island.

Expected interest rates on borrowing

Council does not have the financial capacity to enter into borrowing arrangements, without securing funding to allow repayment. Consequently, over the period of the Long-Term Plan, Council does not expect to enter into any new borrowing arrangements.

However, given the scarcity of funding and the impacts on Council's cash flows, it is probable that debt will be required in short intervals as a bank overdraft, with estimated interest and bank charges based on historic fees charged.

Contracts with external service providers

The council has engaged the services of several organisations to fulfil its statutory responsibilities. This includes: regional council support, infrastructural engineering services, and road, water, and wastewater maintenance.

These contracts will be up for renewal over the period of the Long-Term Plan. It is assumed when the contracts are tendered there will be no significant change in the cost of these services or the financial support for them, except as adjusted for inflation and the cost of meeting any revised compliance requirements.

Asset assumptions

Timing and level of capital expenditure

Council will not proceed with capital expenditure, until funding for the work is confirmed, and therefore a significant risk exists that capital projects will be delayed or may not occur when planned, resulting in further deterioration to existing assets. This may have an impact on the projected future costs of the project, creating a risk that costs may vary from those estimated. If a project is delayed, linked funding, including grants and borrowing may also be deferred.

Revaluation of non-current assets

Revaluations of non-current assets are assumed to occur at five-yearly intervals for roading and other infrastructural assets. Revaluation increases are based on cumulative estimated movements recommended by Business and Economic Research Limited (BERL) for Local Government capital expenditure since the last valuation date.

Depreciation rate, useful lives and frequency of asset replacement assumptions

Depreciation rates for each asset group are set in our accounting policies. Depreciation rates are based on the expected useful life analysis performed by registered valuers in line with the requirements of Accounting Standards.

Estimated asset replacement frequency is based on useful life indicators provided in our latest infrastructural valuations or other strategic documents. Historically, projects are often delayed due to funding or capacity constraints, meaning our assets often continue to be used beyond their estimated useful life.

The Council does not currently fund depreciation to replace infrastructural assets, rather replacement is expected to be funded by way of a capital

grant.

Liability assumptions

Borrowing

Council does not have the financial capacity to borrow, without securing funding to allow repayment. Consequently, over the period of the Long-Term Plan, Council does not expect to have any new borrowing arrangements.

Other assumptions

Population changes

It has been assumed that the population base will remain stable for the foreseeable future and the cost of living relative to household income will not influence families to migrate elsewhere. Census data indicates the Islands' population has remained stagnant, albeit slightly declining over time. Similar trends are reflected in the number of occupied dwellings on the island.

With a population base that is assumed to remain relatively static or slightly declining over time, Council is not anticipating any additional or increased demand on the infrastructural assets to that currently in existence and therefore expects no significant change to operating or capital expenditure due to population movements. Any growth in population will impact on the level of demand on our infrastructure and may increase the risk of asset failure. Additional funding will be required to meet any increased demand.

Changes in land use

Council has assumed that land use will remain relatively static over the next ten years because of limited on-island development opportunities.

The Chatham Islands Resource Management Document provides mechanisms that allows for development within existing zones. Any development occurring over the course of the next ten years is not expected to have a significant impact on any potential changes to land use or zoning requirements.

Levels of service

The council places reliance on sufficient funding being available from external sources to maintain its level of service. The service levels Council provides may require adjustment in response to issues identified by the community, changes to legislation, or other external factors.

Levels of service, especially those pertaining to infrastructure, will remain static unless increased through a specific capital works programme, supported by external grant, or assistance with debt repayment. Where development occurs, the increased application will be limited to that area or township.

Opportunities for shared services

We assume we will continue to build effective relationships with our regional partners including the Chatham Islands Enterprise Trust, Ngati Mutunga o Wharekauri Iwi Trust, Hokotehi Moriori Trust and other island-based Government agencies. Council needs to ensure that there is sufficient capability and capacity available to meet the current and future level of works. This may include working with other on-island agencies to develop efficiencies.

Legislative change

Government legislation and regulations and Council documents such as the Resource Management Document shape the Council's operational and capital expenditure. Council's approach to providing services on-island is to maintain existing levels of service.

No provision has been made for the impact of legislative or other changes in the Long-Term Plan. Council does not have the ability to fund higher levels of expenditure driven by legislative change unless additional funding support is provided from Central Government. If such funding is not provided, the Council will be unable to comply with the legislation.

Climate change

Except for planned service improvements in our roading infrastructure to mitigate risks associated with increased rainfall. No other adjustments have been made to the financial forecast over the next 10-years related to climate change impacts, primarily due to Council lacking the financial capacity to do so. It is acknowledged that planning is required.

Temperature and level of rainfall are expected to rise over time, resulting in the following potential impacts for our Islands:

- **Flooding** - More heavy rainfall will increase the risk of flooding on the islands. For instance, higher water levels in Te Whanga lagoon after heavy rainfall could increase the risk of surface flooding of nearby roads.
- **Coastal hazards** - Coastal roads and infrastructure may face increased risk from coastal erosion and inundation, increased storminess and sea-level rise.
- **Biosecurity** - Warmer, wetter conditions could increase the spread of pests and weeds.

As a group of islands, we are increasingly vulnerable to the impacts of climate change. Any change to the land or water level poses a threat to our way of life for current and future generations. Council is committed to taking a collaborative approach to addressing any identified local causes and impacts of climate change, which includes strategically varying our core Council infrastructure and internal policies to reduce or mitigate any greenhouse gas emissions. Any costs of meeting our climate change obligations are expected to be absorbed into our current financial projections.

Resilience of infrastructure related to natural hazards

Financial estimates exclude the financial implications of a natural disaster as it is not possible to quantify any impact on Council. Although Council is insured, not all costs would be covered.

As is common for remote islands, most of the important infrastructure is located very near to the coastline, leaving it susceptible to natural disasters caused by the ocean.

The natural disasters the Chatham Islands are most likely to be exposed to include: cyclones, tsunamis, and localised flooding. Given the roading structure radiates outward to the various townships, it is possible that some areas may be cut-off due to such events as the roads being impassable. It is therefore essential that our residents are suitably provisioned for such events, which is promoted through our community development and emergency response activities.

Key infrastructural assets may be potentially damaged from such events where the infrastructure is located on the coast such as wharves, bridges, seawalls, roads, pipelines, and pump stations.

If infrastructure is damaged, roading repair work will fall under the NZ Transport Agency programme, and water and wastewater repairs will fall under the operations and maintenance contract, with any additional repair cost being funded through the Chatham Islands Mayoral Relief Fund. The council also has additional funds set aside to respond to an emergency event. However, any repairs would require substantial support from the Central Government.

Privately owned assets, such as wharves, will be repaired at the owner's expense.

The Local Water Done Well plan:

Changes giving effect to the Government's reform of New Zealand's drinking water, wastewater and stormwater services are underway. There exists significant uncertainties in relation to the final application of legislation on Councils. While the exact funding mechanisms and legislative obligations are currently unclear, the Council has assumed any additional funding will be provided through the annual appropriation. The additional estimated compliance costs have been separately disclosed in the financial forecasts as unbudgeted items.

Our financial forecasts

Statement of comprehensive revenue and expense

| | Actual 2022/23 \$000 | Annual Plan 2023/24 \$000 | 2024/25 \$000 | 2025/26 \$000 | 2026/27 \$000 | 2027/28 \$000 | 2028/29 \$000 | 2029/30 \$000 | 2030/31 \$000 | 2031/32 \$000 | 2032/33 \$000 | 2033/34 \$000 |
|--|----------------------------|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Revenue | | | | | | | | | | | | |
| General Rates | 367 | 358 | 381 | 406 | 431 | 458 | 487 | 516 | 548 | 581 | 616 | 653 |
| Targeted Rates | 337 | 400 | 436 | 463 | 493 | 524 | 556 | 590 | 626 | 664 | 704 | 746 |
| Grants & Subsidies | 10,616 | 9,834 | 9,346 | 9,897 | 9,286 | 9,264 | 10,723 | 10,642 | 10,050 | 11,614 | 11,487 | 10,886 |
| Council Dues | 316 | 281 | 309 | 318 | 327 | 336 | 345 | 354 | 363 | 373 | 382 | 392 |
| Interest | 41 | 16 | 42 | 44 | 45 | 46 | 48 | 49 | 51 | 52 | 54 | 55 |
| User Pays, Fees & Charges and Other Income | 925 | 330 | 374 | 388 | 396 | 407 | 511 | 429 | 440 | 455 | 463 | 474 |
| Total Revenue | 12,602 | 11,219 | 10,888 | 11,516 | 10,978 | 11,035 | 12,670 | 12,580 | 12,078 | 13,739 | 13,706 | 13,206 |
| Expenditure | | | | | | | | | | | | |
| Depreciation and Amortisation | 2,385 | 2,484 | 2,210 | 2,315 | 2,360 | 2,552 | 2,638 | 2,747 | 2,822 | 2,812 | 3,156 | 3,241 |
| Employment Benefits | 1,016 | 990 | 1,060 | 1,091 | 1,122 | 1,154 | 1,186 | 1,217 | 1,250 | 1,283 | 1,315 | 1,349 |
| Financial Costs | - | 3 | 1 | - | - | - | - | - | - | - | - | - |
| Other Expenditure | 7,654 | 6,553 | 6,393 | 6,562 | 6,736 | 6,791 | 7,101 | 7,339 | 7,392 | 7,720 | 7,961 | 8,023 |
| Total Expenditure | 11,055 | 10,030 | 9,664 | 9,968 | 10,218 | 10,497 | 10,925 | 11,303 | 11,464 | 11,815 | 12,432 | 12,613 |
| Total Surplus/Deficit | 1,547 | 1,189 | 1,224 | 1,548 | 760 | 538 | 1,745 | 1,277 | 614 | 1,924 | 1,274 | 593 |
| Other Comprehensive Income | | | | | | | | | | | | |
| Share of surplus of associate | 62 | 150 | 109 | 112 | 116 | 103 | 106 | 109 | 113 | 116 | 119 | 123 |
| Increase/decrease in Revaluation Reserve | - | - | - | - | 21,086 | - | - | - | - | 18,713 | - | - |
| Total Other Comprehensive Income | 62 | 150 | 109 | 112 | 21,202 | 103 | 106 | 109 | 113 | 18,829 | 119 | 123 |
| Total Comprehensive Income | 1,609 | 1,339 | 1,333 | 1,660 | 21,962 | 641 | 1,851 | 1,386 | 727 | 20,753 | 1,393 | 716 |

Statement of changes in net assets/equity

| | Actual 2022/23 \$000 | Annual Plan 2023/24 \$000 | 2024/25 \$000 | 2025/26 \$000 | 2026/27 \$000 | 2027/28 \$000 | 2028/29 \$000 | 2029/30 \$000 | 2030/31 \$000 | 2031/32 \$000 | 2032/33 \$000 | 2033/34 \$000 |
|--|----------------------------|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Equity at the start of the year | 96,886 | 99,115 | 100,941 | 102,274 | 103,934 | 125,896 | 126,537 | 128,388 | 129,774 | 130,501 | 151,253 | 152,646 |
| Total comprehensive income | 1,609 | 1,339 | 1,333 | 1,660 | 21,962 | 641 | 1,851 | 1,386 | 727 | 20,753 | 1,393 | 716 |
| Equity at the end of the year | 98,495 | 100,454 | 102,274 | 103,934 | 125,896 | 126,537 | 128,388 | 129,774 | 130,501 | 151,253 | 152,646 | 153,362 |

Statement of financial position

| | Actual 2022/23 \$000 | Annual Plan 2023/24 \$000 | 2024/25 \$000 | 2025/26 \$000 | 2026/27 \$000 | 2027/28 \$000 | 2028/29 \$000 | 2029/30 \$000 | 2030/31 \$000 | 2031/32 \$000 | 2032/33 \$000 | 2033/34 \$000 |
|--|----------------------------|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Current Assets | | | | | | | | | | | | |
| Cash & cash equivalents | 29 | 189 | - | - | - | - | - | - | - | - | - | - |
| Cash investments | 182 | 0 | 187 | 193 | 199 | 205 | 211 | 217 | 224 | 231 | 237 | 245 |
| Receivables and other financial assets | 857 | 719 | 740 | 783 | 747 | 750 | 862 | 856 | 821 | 934 | 932 | 898 |
| Total Current Assets | 1,068 | 908 | 928 | 976 | 945 | 955 | 1,073 | 1,073 | 1,045 | 1,165 | 1,170 | 1,143 |
| Non-Current Assets | | | | | | | | | | | | |
| Investment in associate | 242 | 500 | 351 | 463 | 579 | 682 | 788 | 897 | 1,010 | 1,126 | 1,245 | 1,368 |
| Property, equipment & intangible assets | 98,858 | 100,827 | 102,509 | 104,269 | 126,230 | 126,727 | 128,481 | 129,885 | 130,382 | 151,041 | 152,348 | 152,720 |
| Total Non-Current Assets | 99,100 | 101,327 | 102,860 | 104,732 | 126,809 | 127,409 | 129,269 | 130,782 | 131,392 | 152,167 | 153,593 | 154,088 |
| Total Assets | 100,168 | 102,235 | 103,788 | 105,708 | 127,754 | 128,365 | 130,341 | 131,855 | 132,437 | 153,332 | 154,762 | 155,231 |
| Current Liabilities | | | | | | | | | | | | |
| Bank Overdraft | 80 | - | 118 | 344 | 394 | 326 | 484 | 561 | 394 | 490 | 444 | 172 |
| Payables and other financial liabilities | 1,487 | 1,686 | 1,305 | 1,341 | 1,374 | 1,502 | 1,470 | 1,520 | 1,542 | 1,589 | 1,672 | 1,697 |
| Total Current Liabilities | 1,567 | 1,686 | 1,424 | 1,684 | 1,768 | 1,828 | 1,954 | 2,081 | 1,936 | 2,079 | 2,116 | 1,868 |
| Non-Current Liabilities | | | | | | | | | | | | |
| Other non-current financial liabilities | 106 | 95 | 90 | 90 | 90 | - | - | - | - | - | - | - |
| Total Non-Current Liabilities | 106 | 95 | 90 | 90 | 90 | - | - | - | - | - | - | - |
| Total Liabilities | 1,673 | 1,781 | 1,514 | 1,774 | 1,858 | 1,828 | 1,954 | 2,081 | 1,936 | 2,079 | 2,116 | 1,868 |
| Net Assets | 98,495 | 100,454 | 102,274 | 103,934 | 125,896 | 126,537 | 128,388 | 129,774 | 130,501 | 151,253 | 152,646 | 153,362 |
| Public Equity | | | | | | | | | | | | |
| Accumulated Funds & Reserves | 98,495 | 100,454 | 102,274 | 103,934 | 125,896 | 126,537 | 128,388 | 129,774 | 130,501 | 151,253 | 152,646 | 153,362 |
| Total Public Equity | 98,495 | 100,454 | 102,274 | 103,934 | 125,896 | 126,537 | 128,388 | 129,774 | 130,501 | 151,253 | 152,646 | 153,362 |

There are several capital expenditure projects that have been excluded from the budget, due to the project not securing funding. This relates to three water infrastructure upgrades, expansion of our waste management facilities and structural repairs to the Kaingaroa wharf.

The expected capital expenditure associated with these projects are detailed below, cost estimates are allocated based on priority level. Council intends to approach the Government for additional support to assist with meeting our obligations with complying with current water regulation requirements.

| Unfunded capital costs | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP | LTP |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----|
| | 2024/25 \$000 | 2025/26 \$000 | 2026/27 \$000 | 2027/28 \$000 | 2028/29 \$000 | 2029/30 \$000 | 2030/31 \$000 | 2031/32 \$000 | 2032/33 \$000 | 2033/34 \$000 | |
| Capital expenditure - to improve the level of service | 1,416 | 236 | 1,888 | 1,711 | 71 | 2,785 | 2,667 | 1,251 | 1,251 | 1,251 | |
| Capital expenditure - to replace existing assets | 8,219 | 5,292 | 5,688 | 7,334 | 4,295 | 2,213 | 6,040 | 596 | 165 | 1,339 | |
| Total unfunded capital expenditure | 9,635 | 5,528 | 7,576 | 9,045 | 4,366 | 4,997 | 8,707 | 1,847 | 1,416 | 2,590 | |

Statement of cash flows

| | Actual 2022/23 \$000 | Annual Plan 2023/24 \$000 | 2024/25 \$000 | 2025/26 \$000 | 2026/27 \$000 | 2027/28 \$000 | 2028/29 \$000 | 2029/30 \$000 | 2030/31 \$000 | 2031/32 \$000 | 2032/33 \$000 | 2033/34 \$000 |
|--|----------------------------|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Cash Flow from Operating Activities | | | | | | | | | | | | |
| Receipts from rates revenue | 737 | 811 | 815 | 865 | 927 | 982 | 1,033 | 1,107 | 1,177 | 1,234 | 1,320 | 1,402 |
| Receipts from grants and subsidies | 10,008 | 10,295 | 9,328 | 9,862 | 9,316 | 9,261 | 10,632 | 10,647 | 10,078 | 11,521 | 11,489 | 10,914 |
| Receipts from Council Dues | 318 | 301 | 308 | 316 | 328 | 336 | 341 | 354 | 364 | 369 | 382 | 393 |
| Interest received | 41 | 16 | 42 | 44 | 45 | 46 | 48 | 49 | 51 | 52 | 54 | 55 |
| Receipts from other revenue | 1,084 | 431 | 370 | 380 | 403 | 406 | 401 | 430 | 446 | 435 | 463 | 480 |
| Cash provided from Operating Activities | 12,188 | 11,854 | 10,864 | 11,468 | 11,019 | 11,031 | 12,455 | 12,587 | 12,117 | 13,612 | 13,709 | 13,244 |
| Payments made to employees | (1,004) | (982) | (1,060) | (1,091) | (1,122) | (1,154) | (1,186) | (1,217) | (1,250) | (1,283) | (1,315) | (1,349) |
| Interest paid | - | (3) | (1) | - | - | - | - | - | - | - | - | - |
| Other payments to suppliers | (7,755) | (6,808) | (6,012) | (6,516) | (6,706) | (6,752) | (7,029) | (7,288) | (7,374) | (7,658) | (7,878) | (8,003) |
| Cash required for operating activities | (8,759) | (7,793) | (7,073) | (7,607) | (7,828) | (7,906) | (8,215) | (8,505) | (8,624) | (8,941) | (9,193) | (9,352) |
| Net Cash Flow from Operating Activities | 3,429 | 4,061 | 3,791 | 3,860 | 3,191 | 3,124 | 4,239 | 4,082 | 3,492 | 4,671 | 4,516 | 3,893 |
| Cash Flow from Investing Activities | | | | | | | | | | | | |
| Purchase of Fixed Assets | (3,483) | (4,242) | (3,748) | (4,075) | (3,235) | (3,050) | (4,391) | (4,152) | (3,319) | (4,759) | (4,463) | (3,613) |
| Sale (Purchase) of Other Assets | (182) | - | - | - | - | - | - | - | - | - | - | - |
| Net Cash Flow from Investing Activities | (3,666) | (4,242) | (3,748) | (4,075) | (3,235) | (3,050) | (4,391) | (4,152) | (3,319) | (4,759) | (4,463) | (3,613) |
| Cash Flow from Financial Activities | | | | | | | | | | | | |
| Loans Raised | - | - | - | - | - | - | - | - | - | - | - | - |
| Repayment of Loans | (27) | (22) | (22) | (5) | - | - | - | - | - | - | - | - |
| Net Cash Flow from Financial Activities | (27) | (22) | (22) | (5) | - | - | - | - | - | - | - | - |
| Increase/(Decrease) in Cash Held | (263) | (203) | 21 | (220) | (44) | 74 | (152) | (70) | 173 | (88) | 53 | 280 |
| Opening Cash Balance | 212 | 392 | 49 | 70 | (151) | (195) | (120) | (272) | (343) | (169) | (258) | (205) |
| Closing Cash Balance | (51) | 189 | 70 | (151) | (195) | (120) | (272) | (343) | (169) | (258) | (205) | 75 |

Estimates exclude ongoing consequential operational expenditure and depreciation adjustments.

In addition to our unfunded capital expenditure, the Chatham Islands Council has also identified additional operational expenditure required to allow for proactive maintenance and technical support of our three water assets, along with support to transition to and comply with the Local Water Done Well plan and further cost savings required to manage our budget prudently. These estimated costs have been excluded from the budget but Council will advocate for additional funding to be made available as part of the annual crown appropriation.

| | LTP 2024/25 \$000 | LTP 2025/26 \$000 | LTP 2026/27 \$000 | LTP 2027/28 \$000 | LTP 2028/29 \$000 | LTP 2029/30 \$000 | LTP 2030/31 \$000 | LTP 2031/32 \$000 | LTP 2032/33 \$000 | LTP 2033/34 \$000 |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Unfunded operational costs | | | | | | | | | | |
| Three waters - payments to suppliers | 921 | 878 | 917 | 958 | 1,001 | 996 | 1,043 | 1,093 | 1,095 | 1,150 |
| Environmental protection - payments to suppliers | 209 | 340 | 416 | 428 | 439 | 451 | 462 | 474 | 486 | 498 |
| Total unfunded operational expenditure | 1,130 | 1,218 | 1,333 | 1,385 | 1,440 | 1,446 | 1,505 | 1,566 | 1,581 | 1,647 |

Statement of accounting policies

Reporting entity

Chatham Islands Council is a Unitary Local Authority under the Chatham Islands Council Act 1995 and the Local Government Act 2002 and is domiciled and operates in New Zealand.

Chatham Islands Council has designated itself as a public benefit entity for financial reporting purposes. The primary objective of the Council is to provide goods and services for community or social benefit rather than to make a financial return. As a defined public entity under the Public Audit Act 2001, the Council is audited by the Office of the Auditor General and is classed as a Public Sector Public Benefit Entity for financial reporting purposes.

The prospective financial statements of Chatham Islands Council are for the period 1 July 2024 to 30 June 2034.

They were authorised for issue by Chatham Islands Council on xx June 2024. The prospective financial information will next be reviewed as part of the 2025/26 Annual Plan process.

The accounting policies have been applied consistently to all periods presented in these prospective financial statements.

Chatham Islands Council is responsible for the prospective financial statements presented, including the appropriateness of the assumptions underlying the prospective financial statements and all other required disclosures.

Basis of preparation

The financial statements are prepared in accordance with the requirements of the Local Government Act 2002, which requires information to be

prepared in accordance with New Zealand Generally Accepted Accounting Practice (NZ GAAP).

The financial statements comply with Public Benefit Entity International Public Sector Accounting Standards (PBE IPSAS). This includes preparing the accounts on a going concern basis.

Chatham Islands Council has elected to prepare the financial statements in accordance with Tier 2 PBE accounting standards as it is not publicly accountable or large and therefore reduced disclosure requirements will apply.

Measurement base

The financial statements have been prepared on a historical cost basis, modified by the revaluation of certain infrastructural assets.

The financial statements are presented in New Zealand dollars and all values are rounded to the nearest thousand (\$000). The functional currency of Chatham Islands Council is New Zealand dollars.

Critical financial assumptions, judgements and estimations

These prospective financial statements have been prepared in compliance with PBE IPSAS, specifically PBE FRS 42 Prospective Financial Statements.

In preparing the statement of service performance and financial statements, Chatham Islands Council has made judgements on the application of reporting standards and has made estimates and assumptions concerning the measurement of certain service performance targets.

The main judgements, estimates and assumptions are discussed below:

Measure selection and level of aggregation

The service performance measures in this Long-Term Plan are intended to set measures and targets which will provide quantitative measurement of progress when compared to the actual results of activities delivered by Chatham Islands Council.

The measures included in this Long-Term Plan are broken down into the six groups of activities, providing a holistic set that give a rounded picture of the non-financial performance of Chatham Islands Council.

Each activity's metrics were agreed with Council and management. This process ensured the selected measures best reflect Chatham Islands Council's performance and are available in a timely and accurate manner. Included within the performance measures are the mandatory performance measures set under section 261B of the Local Government Act 2002, the Secretary for Local Government made the Non-Financial Performance Measures Rules 2013. This was to ensure the public were able to assess a reasonable comparison across all the councils.

The service performance measure results are reported to Council through the Performance, Audit and Risk Committee annually. Actual results are expected to be reported in the Annual Report for each year.

Surveys

In preparing the statement of service performance, the Council has made judgements on the application of reporting standards and has made estimates and assumptions concerning the measurement of certain service performance targets.

This includes the use of survey results to gauge service performance, which is inherently at risk of low response rates, unintentionally unrepresentative sampling, or inadequate question setting.

We apply the following judgements:

Surveys used in the statement of service performance are based on questions set in the Long-Term Plan, and the responses received are used to improve Council's processes and service delivery.

To encourage a wide response rate, a wide variety of platforms were utilised to provide a copy of the survey link. Including the Chatham Islands Council e-newsletter mailing list, emails the Council held on their Rating Information Database (RID) and other social media channels. The survey was also promoted to residents by advertising the survey on our website and social media channels, as well as having paper copies available at the Council office.

Any measure reporting on a survey result, utilises data from the residents satisfaction survey.

Customer service requests

Customer Service Requests referred to in a range of measures means requests received by email, telephone or verbally by Council staff during normal working hours. All customer service requests are entered into the Council's financial management system and updated as completed.

The assumption is that all requests are managed through this process as opposed to staff receiving and responding to requests independently.

Where material, financial information on the main assumptions is provided in the critical assumptions section. The estimates and assumptions are based on historical experience as well as other factors that are believed to be reasonable under the circumstances. Subsequent actual results may differ from these estimates.

The estimates and assumptions are reviewed on an ongoing basis and adjustments are made where necessary.

Judgements that have a significant effect on the financial statements and estimates with a significant risk of material adjustment are discussed in the

critical assumptions section. Significant judgements and estimations include asset revaluations, impairments and provisions.

Significant standards, amendments and interpretations issued but not yet effective and not early adopted

The Council is not aware of any substantive changes proposed to significant standards, amendments and interpretations issued but not yet effective, nor have the Council elected to early adopt any accounting standards. Accounting policies have been applied consistently across the ten-year period.

The following accounting policies, which materially affect the measurement of results and financial position, have been applied.

Revenue recognition

- **Rates** are set annually by resolution from the Council and relate to a particular financial year. All ratepayers are invoiced within the financial year for which the rates have been set. Rates revenue is recognised in full as at the date when rate assessment notices is sent to the ratepayers. Rates are a tax as they are payable under the Local Government Ratings Act 2002 and therefore meet the definition of a non-exchange transaction.
- **Grants** are recognised when any conditions relating to expenditure or other eligibility criteria have been fulfilled or when control over the asset is obtained. Grants are a non-exchange transaction.
- **Other revenue** from operating activities are generally measured at the fair value of consideration received or receivable. The Council undertakes various activities as part of its normal operations which generates revenue. Other revenue items are a non-exchange transaction.

Expenditure recognition

Expenses are recognised in the period to which they relate.

Taxation

Chatham Islands Council is a public authority and consequently is exempt from the payment of income tax, except for income derived from Council Controlled Organisations.

All items in the financial statements are exclusive of GST, except for receivables and payables, which are stated as GST inclusive. The net amount of GST recoverable from or payable to Inland Revenue is included as part of receivables or payables in the Statement of Financial Position.

Cash and cash equivalents

Our cash and cash equivalents include cash in hand, deposits held on call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are disclosed in the current liabilities section in the statement of financial position. Our cash and cash equivalents balances are subject to expected credit losses, however no loss allowance has been recognised because the estimated amount is trivial.

Cash investments with maturities exceeding three months are recognised as cash investments. They are initially measured at the amount invested, adjusted for interest received.

Receivables and other financial assets

Short-term receivables are recorded at the amount due, less an allowance for expected credit losses. The Council apply the simplified expected credit losses model of recognising lifetime expected credit losses for short-term receivables.

In measuring expected credit losses, receivables have been grouped into rates receivables, and other receivables, and assessed on a collective basis

as they possess shared credit risk characteristics. A provision matrix is then established based on historical credit loss experience, adjusted for forward looking factors specific to the debtors and the economic environment.

Rates are “written-off” where rates cannot be reasonable recovered and when remitted in accordance with the Council’s rates remission policy.

Other receivables are written-off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include the debtor being in liquidation or the receivable being more than one year overdue.

Council has recognised no expected credit losses as part of the 2024-34 Long-Term Plan. Other financial assets are initially recognised at fair value.

All Council transactions are considered non-exchange transactions. Non-exchange receivables arise when the Council is owed value from another party without giving approximately equal value directly in exchange for the value received. Most of the goods or services that the Council provides are funded from our general funds and therefore the exchange is unequal. Examples of non-exchange transactions include rates, grants, infringements and fees and charges.

Non-exchange transactions are comprised of either taxes or transfers. Transfers also include grants that do not have specific conditions attached which require return of the grant for non-performance. Exchange receivables arise when the Council is owed by another entity or individual for goods or services provided directly by the Council and will receive approximately equal value in a willing arm’s length transaction (primarily in the form of cash in exchange). Examples of exchange transactions include amounts for commercial sales fees and charges that have not been subsidies by our general funds.

Investment in an associate

Associates are entities over which the Council has significant influence but not control. Investments in associates are accounted for using the equity method. The Council has an interest in the Chatham Islands Housing Partnership Trustee Limited (trustee company). The trustee company comprises four shareholders, each with the right to appoint one director. The Council has recognised the significant influence over the trustee company and accounts for a 25% share in the trustee company as an associate.

The trustee company holds no assets or liabilities, and its purpose is to act as a sole trustee of the Chatham Islands Housing Partnership (housing trust). The Council has recognised that the housing trust forms part of the trustee company’s group and therefore recognised a 25% share in the trustee company group.

The purpose of the housing trust is to relieve hardship caused through isolation and reduced access to housing. The reporting date of the housing trust is 31 March. There are no significant restrictions on the ability of the associate group to transfer funds to the Council in the form of cash dividend or similar distributions, or to repay loans or advances. As at 31 June 2023, the housing trust has \$2 million for the construction of five houses. The Council’s share of an associate's profits or losses is recognised in the surplus or deficit.

Council Controlled Organisations

The Council has one Council Controlled Organisation, the Chatham Islands Mayoral Disaster Relief Fund Trust. Its purpose is as a body to receive grants to respond to emergency events on the Chatham Islands. For the year ended 30 June 2023, and for the period of the Long-Term Plan, Council expects the entity to be dormant, with no assets or liabilities or any other transactions for the period. Therefore, the parent and group accounts are the same.

The Council has exempted this organisation from reporting under Section 7 of the Local Government Act 2002.

Property, equipment and intangible assets

Expenditure is recognised as a property, equipment and intangible asset when it creates a new asset or increases the economic benefits of an existing asset. Costs that do not meet the criteria for capitalisation are expensed. Where an asset is acquired in a non-exchange transaction for nil or nominal consideration, the asset is initially recognised at fair value at the date of transfer. Work in progress is recognised at cost less impairment and is not depreciated.

Our property, equipment and intangible assets consists of operational assets, infrastructure assets and intangible assets.

Operational assets include land, buildings and non-revalued equipment items. Our land and buildings were valued at deemed cost by way of Government Valuation, as at 1 July 1989. Subsequent additions are valued at cost. All other operational assets are valued at cost less accumulated depreciation.

Infrastructure assets include the roading network, drainage, reticulation systems for drinking water and wastewater and waste management assets. The most recent infrastructural assets revaluation was independently completed by Stantec NZ as at 30 June 2022, using the depreciated replacement cost method. Subsequent additions are included at costs.

Intangible assets are primarily costs associated with acquiring computer software, which is valued at cost less accumulated amortisation.

After initial recognition, certain asset classes are revalued to fair value. Where there is no active market for an asset, fair value is determined by optimised depreciated replacement cost. Optimised depreciated replacement cost is a valuation methodology where the value of an asset is

based on the cost of replacement. The remaining life of the asset is estimated and straight-line depreciation applied to bring the replacement cost to a fair value. Our infrastructure asset classes that are revalued, are revalued with sufficient regularity to ensure that their carrying amount does not differ materially from fair value. The valuation cycle for revalued asset classes is normally five years. The results of revaluing are credited or debited to an asset revaluation reserve for that class of asset. Where this results in a debit balance in the asset revaluation, this balance is expensed in the statement of comprehensive revenue and expense.

There are several estimates and assumptions exercised when valuing infrastructural assets using the depreciated replacement cost method.

These include:

- Unit costs are sourced from engineering staff, previous valuations and contract rates. Where applicable Chatham Island specific rates are not available, mainland NZ rates are used as a proxy with an additional mark-up to account for the remote nature of the islands and the logistical challenges for completing works, these are confirmed as suitable by engineering staff.
- Remaining useful lives have been determined by calculating the difference between the respective asset's expected Total Useful Life (TUL) and the age of the asset. Note that where an asset's age is unknown, both engineering judgement and local knowledge have been used to assign a suitable remaining life.
Valuations of assets exclude land assets, including land under roads.

If an asset's carrying amount exceeds its recoverable amount, the asset is impaired and the carrying amount is written down to the recoverable amount. For revalued assets, the impairment loss is recognised against the revaluation reserve for that class of asset. For assets not carried at a revalued amount, the total impairment loss is recognised in the Statement of Comprehensive revenue and expense.

Depreciation and amortisation is provided on a straight-line basis on all assets. Rates are calculated to allocate the asset's cost or valuation less estimated residual value over their estimated useful life, as follows:

| Asset | Years |
|--|---|
| Operational assets | |
| Buildings | 10-50 years |
| Office equipment | 1-15 years |
| Vehicles | 5-10 years |
| Parks and reserves | 20-25 years |
| Infrastructure assets | |
| Sealed pavement surface | 5-10 years |
| Sealed pavement layers (first coat seals, basecourse, subbase) | 45-60 years or not depreciated |
| Unsealed pavement layers (wearing course, subbase) | 5 years, or not depreciated for subbase |
| Drainage | 45-55 years |
| Footpaths | 20-25 years |
| Minor structures (including signs, railings and streetlights) | 2-35 years |
| Retaining walls | 25-30 years |
| Bridges, bridge culverts and wharves | 30-45 years |

| Asset | Years |
|--|---------------|
| Drainage, reticulation systems for drinking water and wastewater | |
| Treatment plant and pump stations | 1-26 years |
| Reservoirs | 1-25-35 years |
| Pumps, valve, hydrants and other reticulation assets | 15-55 years |
| Waste management | |
| Landfill, transfer stations and other assets | 5-45 years |
| Intangible assets | |
| Computer software | 5 years |

Payable and other financial liabilities

Short-term creditors and other payables are measured at the amount payable. The carrying value of payables approximates their fair value.

Payables under exchange transactions, transfers and taxes payable are non-interest bearing and are normally settled on 30-day terms. All Council's payables are recognised as exchange transactions as they are directly with another party on an arm's length basis and are of approximately equal value. Non-exchange payables are classified as either transfers payable (for example, Council grants) or taxes (for example, PAYE).

A provision for employee benefit liabilities (holiday leave and outstanding remuneration) is recognised as a liability when benefits are earned but not paid. This has been calculated on an actual entitlement basis. Council does not provide any retirement or long service leave benefits to staff. Council does not recognise a liability for sick leave.

Other provisions are recognised for future liabilities of uncertain timing or amount when there is a present obligation as a result of a past event, it is probable that expenditure will be required to settle the obligation and a reliable estimate of the obligation can be made. Provisions are measured at the expenditure expected to be required to settle the obligation. Liabilities and provisions to be settled beyond 12 months are recorded at their present value.

A provision in the 2021/22 financial year was made for the estimated refund of three years of outstanding Council Dues to the Pitt Island Barge Society. Council Dues are repayable on the production of audited accounts by the Pitt Island Barge Society on an annual basis.

The Council has a 20-year suspensory loan of \$90,000 from Housing New Zealand that must be repaid if the Council does not meet the conditions of the loan prior to 2029. Due to the uncertain nature of this suspensory loan, the Council will not recognise the loan as revenue until it is certain the

funding conditions will be met. The carrying amount of term liabilities repayable within one year approximates their fair value, as the effect of discounting is not significant.

Borrowings

Borrowings on normal commercial terms are initially recognised at the amount borrowed plus transaction costs. Interest due on the borrowings is subsequently accrued and added to the borrowings balance. Borrowings are classified as current liabilities unless the Council or group has an unconditional right to defer settlement of the liability for at least 12 months after balance date.

The Council maintains a prudent borrowings position in relation to our equity and annual revenue. Council will only enter into borrowing arrangements where there is sufficient assurance that additional funding assistance can be obtained to repay borrowings. Borrowings are primarily used to fund the purchase of new assets or upgrades to existing assets. Interest costs associated with the Council's borrowings is disclosed in the Statement of Comprehensive Revenue and Expense.

Public equity

Equity is the community's interest in Chatham Islands Council and is measured as the difference between total assets and total liabilities. Equity is classified into a number of separate components.

The components of equity are:

- Retained earnings: General Funds – Revenue appropriation account to fund future development.
- Restricted reserves: These are reserves that are subject to specific conditions of use, whether under statute or accepted as binding by the Council. Transfers from these reserves may be made only for specified purposes or when certain specified conditions are met. Our restricted reserves are restricted by Council decision rather than being legally binding. Therefore, Council may alter these reserves without reference

to any third party or the Courts. Transfers to and from these reserves are at the discretion of the Council and include:

- Emergency Services Reserve - Funds are set aside for emergency events such as natural disasters.
- Mayoral Relief Reserve – Funds are set aside for emergency relief.
- Asset Revaluation Reserve: Reserves generated by revaluations in property, plant and equipment and other assets.

Capital management

The Local Government Act 2002 requires the Council to manage its finances prudently and in a manner that promotes the current and future interests of the community. Our general funds are largely managed as a by-product of managing revenues, expenses, assets, liabilities, investments and general financial dealings. The objective of managing these items is to achieve intergenerational equity, which is a principle promoted in the Local Government Act 2002 and applied by the Council. Intergenerational equity requires today's ratepayers to meet the costs of utilising the Council's assets but does not expect them to meet the full cost of long-term assets that will benefit ratepayers in future generations. Additionally, the Council has asset management plans in place for major classes of assets, detailing renewal and programmed maintenance.

These plans ensure ratepayers in future generations are not required to meet the costs of deferred renewals and maintenance.

Movement in equity reserves

| Reserve | Opening balance 1 July 2024 | Increases | Decreases | Closing balance 30 June 2034 |
|--|-----------------------------|---------------|-----------|------------------------------|
| General Funds Income appropriation account to fund future development | 58,335 | 11,497 | - | 69,832 |
| Emergency Services Reserve Funds are set aside for emergency events such as natural disasters | 250 | - | - | 250 |
| Mayoral Relief Reserve Funds are set aside for emergency relief | 25 | - | - | 25 |
| Asset Revaluation Reserve Reserves generated by revaluations in property, plant and equipment and other assets | 42,331 | 39,798 | - | 82,130 |
| Total Equity | 100,941 | 51,295 | - | 152,236 |

The Local Government Act 2002 requires the Council to make adequate and effective provision in its Long-Term Plan to meet the expenditure needs identified in those plans. The Local Government Act 2002 sets out the factors that the Council is required to consider when determining the most appropriate sources of funding for each of its activities. The sources and levels of funding are set out in the funding and financial policies in the Council's Long-Term Plan.

Prudence graphs

Long-Term Plan disclosure statement for the period commencing 1 July 2024

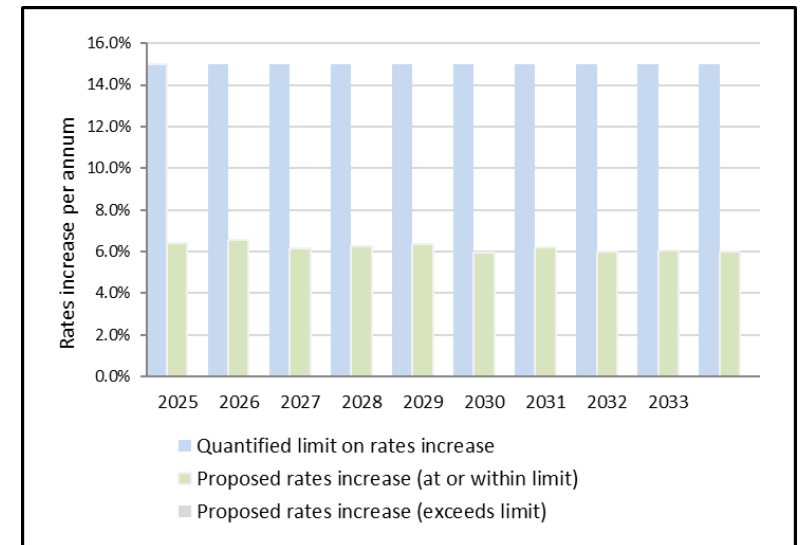
Purpose

The purpose of these statements is to disclose the Council's planned financial performance in relation to various benchmarks, enabling assessment of whether the Council is prudently managing its revenues, expenses, assets, liabilities and general financial dealings.

The Council is required to include this statement in its Long-Term Plan in accordance with the Local Government (Financial Reporting and Prudence) Regulations 2014 (the regulations). Refer to the regulations for more information, including definitions of the terms used in this statement

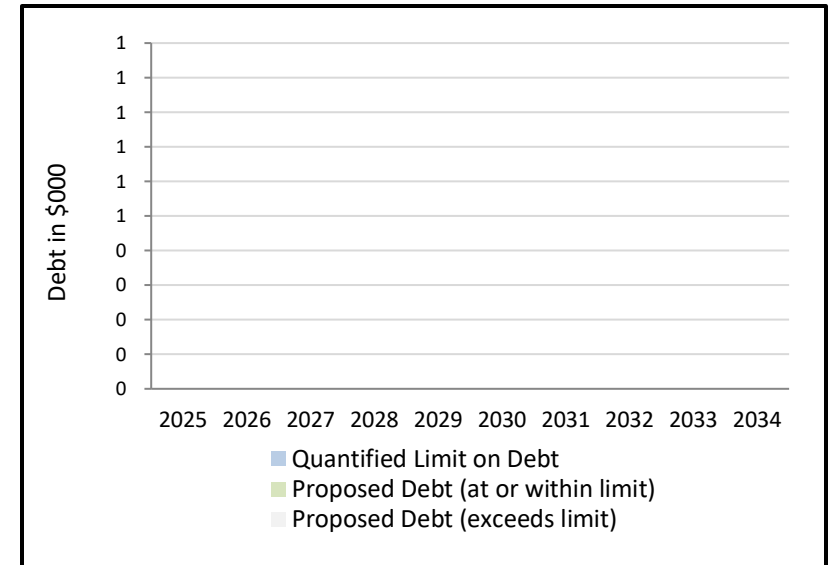
Rates affordability benchmark

The graph compares the Council's actual rates income with a quantified limit on rates contained in the financial strategy included in the council's Long-Term Plan. An annual rate increase limit of 15% has been set by Council, to be used at Council's discretion in cases where an adjustment is necessary to reflect movements with other comparable Councils.



Debt affordability benchmark

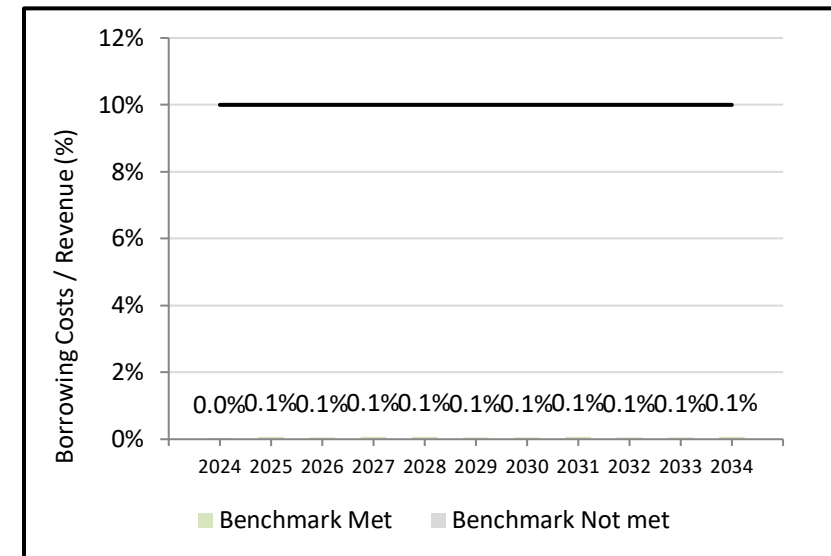
The graph compares the councils actual borrowing with a quantified limit on borrowing stated in the financial strategy included in the Council's Long-Term Plan. The Council's long-term borrowing limits are set at 0%, unless there is a funding arrangement in place to support the repayment. Council's cash balance may fluctuate between a positive and overdraft balance during a year; particularly at the end of the financial year where payments to suppliers may be delayed and interest charges incurred on the overdraft facility. As the nature of the overdraft is temporary and Council expects an influx of cash in July, the borrowing limit is not applied to any cash overdraft and therefore the cash overdraft (if applicable) is excluded from the prudence graph.



Debt servicing benchmark

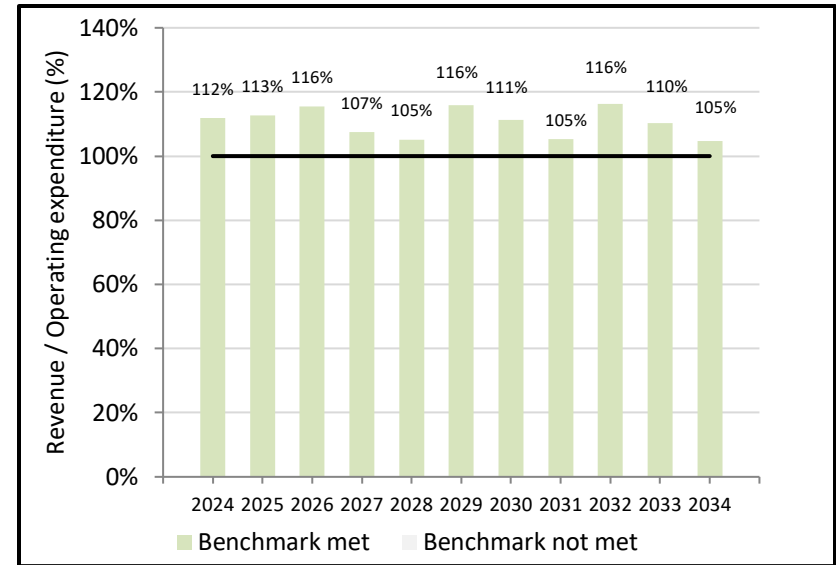
The following graph displays the Council's borrowing costs as a proportion of revenue (excluding development contributions, financial contributions, vested assets, gains on derivative financial instruments and revaluations of property, plant or equipment).

A local authority meets the debt servicing benchmark for a year if its borrowing costs for the year equal or are less than 10% of its revenue defined as above. Council does not enter into debt, unless a funding arrangement is in place to enable Council to make repayments; however interest on the Council's bank overdraft may occur.



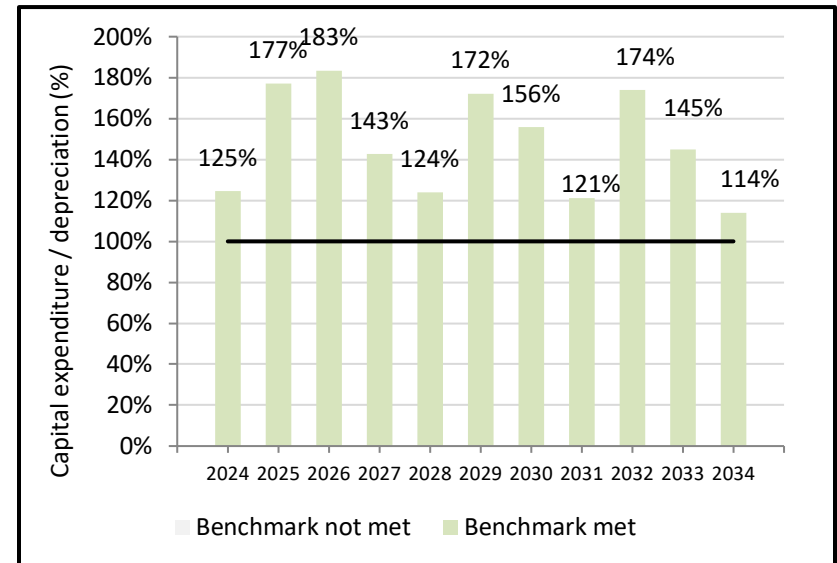
Balanced budget benchmark

The following graph displays the council's revenue (excluding development contributions, financial contributions, vested assets, gains on derivative financial instruments and revaluations of property, plant or equipment) as a proportion of operating expenses (excluding losses on derivative financial instruments and revaluations of property, plant and equipment). The Council meets this benchmark if its revenue equals or is greater than its operating expenses.



Essential services benchmark

The following graph displays the Council's capital expenditure on network services as a proportion of depreciation on network services. The Council meets this benchmark if its capital expenditure on network services equals or is greater than depreciation on network services.



Combined Financial and Infrastructure Strategy

Council is committed to ensuring the continued provision of effective services now and into the future. It achieves this by:

- Managing funds in a financially prudent manner with the aim of achieving a balanced budget each year, and ensuring projected operating revenues are set at a level sufficient to meet that year's projected operating expenses
- Focusing on maintaining core services and infrastructure as cost-effectively and efficiently as possible, ensuring that funding efficiencies remain of paramount importance
- Developing Council's capacity and capability to build, maintain and renew assets by limiting expenditure to where it is reasonable and economic to do so. Council interprets this as only progressing projects which are fully funded either by way of capital grant or where Council has an ability to borrow and repay debt. Such an approach may defer projects, which may result in a higher risk of asset failure and the asset deteriorating at a faster rate over time
- Maintaining current levels of service provided, with an expectation that service levels will only increase where external support is provided
- Advocating for sustainable and committed funding from the Government and to fully utilise available subsidies and, where possible, searching for alternative sources of funding through user pays or other partnerships

Our infrastructure environment

A large portion of the Islands' community needs to be self-sufficient, similar to most rural communities. With the low population base and wide geographic spread of residents, providing large-scale infrastructure to serve the majority of the community is generally not feasible. This makes the roading network extremely important to provide connectivity between settlements and to achieve desired community outcomes.

Only Chatham and Pitt Islands are populated. There are five main settlement areas on Chatham Island: Waitangi, Te One, Owenga, Kaingaroa and Port Hutt. The settlements are located where the main roads radiate out from Waitangi to end at each settlement. None of these roads connect as a loop road with another main road. Therefore, a substantial roading network is necessary to connect each of these sparsely populated settlements.

Council provides a reticulated drinking water supply to households in Waitangi and Kaingaroa to ensure an adequate supply of safe drinking water. In addition, Council is completing the construction of community rainwater collection tank systems to provide non-drinking water to our community, reducing demand on our freshwater resources (e.g. for craypot wash down), with the site at Kaingaroa now completed.

A reticulated wastewater scheme is also provided in Waitangi, to minimise public health risks and adverse environmental effects associated with clusters of onsite wastewater treatment and disposal systems. A reticulated storm water system is not provided in Waitangi or Kaingaroa, except for a small portion of Waitangi. All other residents on Chatham Island operate on rainwater collection and/or private bores for drinking water supply, onsite wastewater treatment and disposal systems (typically a septic tank with land disposal) and onsite storm water disposal (to nearby land, watercourse or roadside water table).

Public drop-off facilities for recyclables and residual solid waste are provided near the townships of Te One and Kaingaroa to protect public health and minimize adverse environmental effects associated with waste and its disposal. Recyclables are processed at the reuse facility near Te One. Residual solid waste is transferred to Council's sanitary landfill near Owenga.

Impact of the Local Water Done Well plan on our financial forecast

The Local Water Done Well plan, indicates councils will need to demonstrate they have a financially sustainable model for the delivery of water services that meets both water quality and water infrastructure rules. In practice, this means councils will need to show how their model will fund the necessary infrastructure investments needed to comply with these rules. The government has indicated that additional one-off funding may be available to support Council's in their transition to the new model.

The outcome of the Local Water Done Well plan is unknown and so Council has assumed a business-as-usual approach for this Long-Term Plan, with Council providing Chatham's three water infrastructure. We assume additional funding support will be provided through the Department of Internal Affairs as part of the annual appropriation and the crown for one-off capital support. This funding has not been confirmed and therefore has been excluded from our financial forecasts.

Our maintenance and renewal works

Capital expenditure is used to build, acquire, and renew our assets, including our infrastructural assets, which include roading, drinking water supply, wastewater, storm water and solid waste management.

An Activity Management Plan (AMP) has been created for our roading assets, funded by the Crown. The AMP is reviewed and updated every three years to meet the identified needs of our community. Our focus remains on maintaining, and where necessary, replacing infrastructural assets. Due to lack of funding availability, no other AMPs are prepared for the other infrastructure assets.

Council's capital expenditure is mainly renewal works (replacing existing assets). These are primarily funded from external assistance grants. Capital expenditure, classified as an increase in levels of service, is generally funded by debt and/ or capital subsidies. Council does not expect any capital expenditure related to population growth as Council has assumed the number of island residents will remain stable. To enable further economic

growth, additional capital expenditure is required, which is contingent on external funding being secured; Council would recognise this expenditure as an increase in levels of service.

As at 30 June 2023, Council had total property, plant and equipment assets of \$99 million. Over the life of the Long-Term Plan, Council is intending to undertake additional capital expenditure of approximately \$38.8 million. This estimate excludes necessary but unfunded projects, particularly related to our three water and solid waste infrastructure.

Council has contracted out its engineering and physical works services for all infrastructural work. Stantec provides engineering services and Fulton Hogan provides operation and maintenance services. A partnership arrangement exists between Council and its service providers whereby all parties work together to achieve the best result for Council at the most cost-effective arrangement.

Identification of renewal and level of service work requirements

Roading

Council's roading infrastructure as at 30 June 2023 was valued at \$91 million.

Stantec conducts quarterly visits to the Islands to inspect the roading network and identify any renewal or improvement work required. These inspections guide the recommendations for programming the renewal work conducted by Fulton Hogan. As Fulton Hogan is the only service provider based on the Islands, they are also actively involved in identifying renewal work for the forward work programme.

Stantec also undertakes biennial structural inspections of the bridges, bridge culverts, and timber wharves, to monitor the condition of these assets and identify any defects to be remediated. Network Safety Inspections are also undertaken at a similar frequency, to ensure that the network is still performing adequately under changing safety guidance, and to identify areas where improvements could be made.

Stantec has identified the roading needs of the Islands and in conjunction with Council, created the Activity Management Plan (AMP) for the Islands. The AMP outlines the problems the Island is experiencing and how these can be addressed in the long term. It also outlines the renewal strategy for asset categories and provides an indicative forward work plan to improve the level of service to road users. The AMP is expected to be finalised in April 2024 in support of the 2024-27 National Land Transport Programme (NLTP) funding application to the NZTA.

Since a relatively small amount of renewal work is conducted each year, the forward work plan is subject to change within the investment period, particularly when assets fail earlier than expected. Furthermore, the increasingly unreliable nature of the single shipping connection to the island makes it challenging to run a maintenance programme exactly at the scheduled timing. A change in shipping arrangements can (and does) change the timing of work, sometimes by up to a year. The NLTP funding application remains under consideration until May 2024. For the purposes of estimating our programme of works, we have assumed the full programme applied for will be successful.

In February 2020, a network-wide field validation of roading assets was undertaken, confirming the location and condition of many of the roading assets across the network. This provided Council with a better understanding of the quality of the asset categories validated and provided an accurate base of knowledge to make programming decisions from. The asset data continues to be maintained at a higher level of accuracy based on this updated validation survey.

Waste management

Council's waste management infrastructure as at 30 June 2023 was valued at \$2.6 million.

Council's solid waste management and minimisation assets are (in some cases) so recent that responses to asset failures are still to be identified

through the compilation of asset management plans, which include details of emergency responses.

Based on the site visits and Stantec's understanding of the Islands' infrastructure, Stantec has identified the water, wastewater, and solid waste minimisation and management needs of the Islands in consultation with the operations and maintenance contractor and the Council. Collectively, they have created a plan for renewals and new capital, dependent on available funding.

Drinking water and wastewater

Council's drinking water and wastewater infrastructure as at 30 June 2023 was valued at \$3.6 million.

Stantec site visits for the drinking water and wastewater schemes are typically conducted three times a year. In addition, Stantec roading staff can carry out inspections (under direction of a Water Engineer) if required during their quarterly visits.

Stantec is in regular contact with the Council and on-Island operations and maintenance contractor, with monthly operations meetings and other dialogue as required to discuss scheme performance, and any other issues that have arisen and practical solutions to resolve these.

Routine monitoring is carried out at each plant, with the results uploaded to a database to enable Stantec to remotely troubleshoot problems with Fulton Hogan. Monthly compliance sampling is carried out at the plants and analysed at a laboratory on mainland New Zealand. Laboratory results are issued directly to Stantec, Fulton Hogan and Taumata Arowai to ensure a prompt response in the case of abnormal results. For drinking water, the appropriate response is outlined in the relevant Water Safety Plan.

Frequency of asset replacement strategy

Council has developed this strategy on the assumption that projects will be completed in accordance with the capital expenditure programme as outlined in our roading AMP and other strategic documents. However,

experience suggests that projects are often delayed due to funding constraints; that is, capital expenditure will only occur if funding arrangements to support the work are confirmed. Council does not have the resources to fund renewals from depreciation.

Capital projects, therefore, may be transferred between years to ensure that scheduled capital expenditure is completed over the life of this 10-year plan. Deferral of programmed works until funding assistance is agreed could potentially mean there is further deterioration of existing assets and a higher risk of asset failure, non-compliance with regulatory requirements, adverse public and environmental health outcomes, and inability to accommodate economic growth.

Council has assumed minimal changes in population and the use of land on the Islands and therefore, does not propose to increase operating or capital

expenditure related to population growth. Further details on our financial assumptions are provided in our financial information section.

Asset replacement

| Asset renewal strategy | Funding strategy | Service strategy |
|--|---|--|
| <i>Transportation, roading and coastal networks:</i> | | |
| <p>Bridges: Currently Council operates on an approximately three-yearly cycle of replacing older bridges with new structures of large culverts as appropriate. The most recent bridge replacement was the Whangamoe Bridge in 2023.</p> <p>The preference for installing large culverts is to lower the long term maintenance requirements, reducing the future cost burden on Council. There are settings where the installation of a culvert is unable to adequately function as a replacement for the existing bridge, due to the distance from the waterway to the existing road and surrounding landform, and occasionally a like for like structural replacement will be required.</p> <p>Investigations were completed for the requirements for temporary water crossings in case key lifeline bridges fail in the event of a natural disaster. This provided Council with a first response resilience plan to maintain levels of service and community connectivity in an emergency event.</p> <p>There are two lifeline bridges which remain under consideration for replacement due to their condition, age and criticality to the network, but the remaining bridges are in relatively good condition. Bridge condition will continue to be monitored and updated by the biennial bridge inspections conducted by Stantec.</p> | <p>Roading expenditure is assisted by an 88% funding subsidy from Waka Kotahi, with the remainder funded from targeted rates and an allocation of Council's general funds, which includes the annual Crown contribution.</p> <p>Any adjustment in the total subsidy level could impact on the programmed work, potentially resulting in works being reduced or deferred to maintain affordable levels of expenditure. If significant, this would impact on the levels of service Council can offer to the community. A higher risk of asset failure would also occur.</p> | <p>The current level of service provided by the Chatham Islands bridges is high, with only two structures remaining on Chatham Island and a further three on Pitt Island that have posted weight restrictions.</p> <p>This comes via the long-term programme of bridge replacements that continues for Council during this Long-Term Plan period.</p> <p>One further bridge replacement and a significant headwall improvement at a large culvert are planned, which will remove the last of the bridge postings on Chatham Island, leaving only structures on Pitt Island bearing restrictions.</p> |
| <p>Sealed road pavements: Under the current maintenance strategy sealed pavement rehabilitations are conducted once over the course of a three-year National Land Transport Programme investment period. This reduces the cost of mobilising plant and resources annually to undertake the work and has helped reduce scheduled rates under the contract.</p> <p>There have been three cycles using this approach, in which 8.3km of sealed pavement has been rehabilitated, since 2017. The next year of scheduled sealed pavement rehabilitations is 2025/26.</p> <p>This approach has reduced the costs of ongoing pavement maintenance and significantly improved the condition and level of service of the sealed pavement network.</p> | <p>Council does not have the ratepayer base to fund the difference from an increase in rates, nor capability to borrow without financial assistance with debt repayments.</p> <p>Further information:</p> <p>Our funding mechanisms are detailed in our revenue and financing policy as part of our funding and other financial management policies information.</p> <p>Our NZTA subsidy assumptions are</p> | <p>The current level of service of the sealed pavement network is above average. This is the result of a change in programming which is better value for money and allows more of the sealed network to be maintained to a higher standard.</p> <p>This change was recent and there remain some pavements that are at the end of their life in need of repair.</p> <p>Retaining the current strategy of holding sealed pavement rehabilitation and re-seal works to every third year, the community can expect to see more of the sealed network</p> |

| Asset renewal strategy | Funding strategy | Service strategy |
|---|--|---|
| | detailed in the above financial information. | <p>renewed which will improve the ride quality and reliability of those sections of the network.</p> <p>This will also see a continuation of the trend of improving the level of service, and an ongoing improvement in resident perception and survey results.</p> |
| <p>Unsealed road network: In each three-year National Land Transport Programme investment period, there will be two years of unsealed rehabilitations, one each side of the sealed rehabilitation year.</p> <p>At present, Council is targeting to strengthen the most-trafficked roads on the unsealed network on a 25-30 year cycle. Maintenance metal is applied as necessary to replace metal loss of the running course over the time between renewals, and potholes and other pavement damage is repaired to ensure the ride quality is adequate.</p> <p>To achieve the 25-30 year renewal timeframe, Council targets 3.8km of unsealed pavement rehabilitation each year that unsealed pavement renewals are undertaken. Adjustments are made to this as funding levels change.</p> | <p>Roading expenditure is assisted by an 88% funding subsidy from Waka Kotahi, with the remainder funded from targeted rates and an allocation of Council's general funds, which includes the annual Crown contribution.</p> <p>Any adjustment in the total subsidy level could impact on the programmed work, potentially resulting in works being reduced or deferred to maintain affordable levels of expenditure. If significant, this would impact on the levels of service Council can offer to the community. A higher risk of asset failure would also occur.</p> <p>Council does not have the ratepayer base to fund the difference from an increase in</p> | <p>We currently aim to renew unsealed pavements on a 25-30 year cycle for the main roads on the island.</p> <p>A continual programme of quality unsealed rehabilitations will improve the quality and lifespan of the pavement on the unsealed network. Renewed pavements have a higher resilience to potholing through the consolidation of the pavement material, and shape correction which ensures adequate surface drainage.</p> <p>This improves the smoothness of the pavements in the long-term, providing better amenity value for users, reducing the maintenance burden on vehicles, and improving safety.</p> |

| Asset renewal strategy | Funding strategy | Service strategy |
|--|--|--|
| <p>Drainage: Council’s roading network is served by a significant drainage system of roadside swales and minor culverts which help to reduce the amount of rainwater on the pavements during poor weather. Council has a large number of culvert assets of varying sizes that form much of the drainage network, and many of these culverts are nearing the end of their useful life.</p> <p>Some culverts are renewed when they are visibility near failure, and some culverts are renewed in conjunction with pavement renewals occurring, so to not disturb the integrity of the new pavement by replacing the culvert shortly after.</p> <p>Culverts have only limited value in isolation, and the creation and maintenance of roadside swales is also important in ensuring the drainage networks functions adequately. The purpose of roadside swales is to appropriately capture and direct runoff from the pavement surface, contributing to improved road surfaces for residents to travel along.</p> <p>The 2024-27 maintenance period will continue to focus on the renewal of roadside swales around the network and the replacement of culverts as they reach the end of their life.</p> | <p>rates, nor capability to borrow without financial assistance with debt repayments.</p> <p>Further information:</p> <p>Our funding mechanisms are detailed in our revenue and financing policy as part of our funding and other financial management policies information.</p> <p>Our NZTA subsidy assumptions are detailed in the above financial information.</p> | <p>The drainage system that services the roading network is currently working adequately, with few instances ongoing of drainage problems across the network.</p> <p>The community will continue to see the renewal of roadside swales on the unsealed network, both in conjunction with pavement renewals, and in areas with identified drainage issues. This should contribute to a better driving surface through directing runoff away from pavements and preventing the formation of potholes and material loss from the pavement.</p> <p>Some culvert assets are at the end of their lives and planning for their renewal or replacement is ongoing.</p> |
| <p><i>Three Waters supply and treatment:</i></p> | | |
| <p>Waitangi water upgrade: Waitangi water supply reservoirs have been drained to low levels due to leaks and high demand in summer, which have required water conservation notices to be issued. Therefore, it is critical that issues of supply are addressed for Waitangi. This project will see a new water source, new treatment plant, and additional storage. It will also include an extension of the network to Te One, which includes the Islands' main school and other key community facilities, who are currently not connected to a water scheme.</p> <p>Timing of this project is uncertain and urgent maintenance and minor improvements are required on the existing system to protect public health and minimise wastage of potable water.</p> | <p>Funding has not been secured for these projects, nor any other critical projects and therefore, these works have been deferred until a grant or loan is secured.</p> <p>Council acknowledges this approach is not always successful, with projects often waiting years before assistance is agreed. In the intervening</p> | <p>Due to funding constraints, Council is unable to comply with all drinking water legislation and wastewater resource consent conditions. This means Council is unable to achieve some mandatory level of service targets.</p> |

| Asset renewal strategy | Funding strategy | Service strategy |
|---|---|------------------|
| <p>Kaingaroa water renewals (network and treatment plant): The reticulation network at Kaingaroa is now at the end of its useful life, resulting in frequent pipe breakages and leakages. Council plans to replace the reticulation to minimise the risk of leaks and ingress of contaminants and conserve the freshwater resource. Upgrades and repairs are also planned to enable compliance with current legislation and best practice.</p> <p>Urgent maintenance and minor improvements are required on the existing treatment and storage system to improve reliability of supply, protect public health and minimise wastage of potable water.</p> | <p>period, standards will fall below that experienced by mainland New Zealand and in some cases, we are unable to comply with legislation.</p> <p>Further information:</p> | |
| <p>Alternative water source investigation, design and planning for Waitangi, Kaingaroa and Te One: There is increased demand on freshwater resources, arising from increased tourism and transient workers; in addition, Council desires increased resilience in the face of climate change. Some of our current water sources are not replenishing at sufficient levels to meet future demand and therefore, we need to understand our alternative drinking water sources options available to Council, to increase resilience for our schemes and water resources for the wider island.</p> | <p>Our annual Crown contribution assumptions are detailed in our financial assumptions as part of our financial information.</p> <p>Our funding mechanisms, including our annual Crown contribution is detailed in our revenue and financing policy as part of our funding and other financial management policies information.</p> | |
| <p>Waitangi wastewater upgrade: The current system is at the end of its useful life and the land application system (where we put the treated wastewater) requires extension. Without adequate treatment, there is a high risk of adverse public health and environmental outcomes. The lower (\$5 million) cost value of the upgrade is estimated, assuming the currently serviced population, whereas the upper value (\$7 million) assumes increased connections arising from increased demand from existing and future residential housing in Waitangi.</p> | | |
| <p>Sludge receipt and disposal facility: This will create a facility for the community that collects, treats, and disposes of septic waste. Removing the current practice of burial in pits and providing an engineered, environmentally sustainable process. This is urgently required.</p> | | |
| <p>Waitangi storm water system: Stormwater from most households is managed onsite, except for a small portion of Waitangi, where stormwater is collected from household roofs. Due to budget constraints, the common pipes, storage tanks and discharge structure, have not been actively maintained by Council, with the concrete and timber tanks in a state of disrepair. Urgent maintenance is required on the existing system to address this.</p> | | |

| Asset renewal strategy | Funding strategy | Service strategy |
|--|--|--|
| <i>Waste management and minimisation:</i> | | |
| <p>Waste minimisation/waste management: Renewal and level of service work in relation to solid waste management and minimisation work is often determined by legislative directive, in particular the Waste Minimisation Act 2008, which requires councils to both manage and minimise waste, which includes waste avoidance and resource recovery.</p> <p>Council has reviewed its waste management and minimisation plan (WMMP) in 2022/23, which included preparing a waste assessment (WA). The WMMP provides guidance for improving the management and minimisation of solid waste on the Chatham Islands. There have been significant improvements made to Council's solid waste management assets and infrastructure over the past few years, and new facilities have been commissioned, including the Owenga Landfill, the Reuse Facility and a weighbridge at Te One. Additionally, an operational contract has been procured. Some of the improvements made are so recent that responses to events of assets failures are still to be identified through the compilation of management plans, which include details of emergency responses, such as the non-availability of assets.</p> <p>Council has adopted a Waste Management and Minimisation Bylaw, which will allow for the introduction of solid waste charges.</p> | <p>Council plans to continue to implement the waste minimisation and waste management capital works in accordance with Council's strategy, as grant funding allows.</p> <p>Council was successful in seeking funding in 2021 for additional waste minimisation infrastructure through the Ministry for the Environment Sustainable Management Fund, and a similar approach will be adopted for new initiatives.</p> <p>Further information:</p> <p>Level of service targets have been revised to reflect current practices and known levels of achievement. Refer to information in our groups of activities.</p> | <p>Council has focused on setting up its waste diversion infrastructure to maximise diversion from landfill before commencing with landfill operations in July 2022. This approach will prolong the life of the landfill asset.</p> <p>The waste management facilities are currently in their infancy on the Island. Consequently, most levels of service require benchmarking to identify whether improvements have occurred over time.</p> <p>Several targets also relate to residents' satisfaction with facilities provided and community interaction. Future investment in our infrastructure is currently unsupported and therefore will be deferred until funding can be secured. To ensure existing levels of service are maintained, it is important that future investment occurs when planned.</p> <p>Otherwise, both the infrastructure and service experience are likely to deteriorate over time.</p> <p>Council has a focus on improving the waste minimisation initiatives by enhancing recycling logistics, obtaining a solution for scrap metal and by considering organic collections and processing.</p> |

Alternative funding strategies

Government and other grants

New Zealand's commercial fishing industry and therefore the Government

benefits substantially from the thousands of kilometers the Islands add to New Zealand's exclusive economic zone.

Due to the size and rating base of the Council, the Islands rely heavily on the Government to supply essential infrastructure. Given the benefits arising

from the exclusive economic zone, the government has agreed to fund ongoing operational support to the Chatham Islands Council, services, much of which is provided at a minimum level, yet at a high cost per capita.

The council's external amounts to approximately 88% of our operating and capital funding sources provided from grants.

Funding assumptions and uncertainties associated with Government grants are outlined in our financial assumptions as part of our financial information.

Our primary financial strategy is to advocate for additional funding where needed from the crown, and to cover the shortfall of all expected operational and capital costs, be these arising from a change in legislative standard or arising from an identified community need.

Borrowing

Borrowing will not generally be used to fund Council activities. This is because levels of funding from the Crown are confirmed annually and therefore due to the lack of certainty, Council are unable to enter any debt repayment arrangements.

Borrowing must ensure intergenerational equity by smoothing funding demands. Council believe it is only reasonable to enter into a new borrowing agreement, where a funding arrangement is in place to support future repayments. As no future funding arrangements are in place and Council does not plan to enter into any borrowing arrangements over the next ten years, the borrowing limit is therefore 0% - this limit excludes any cash overdraft or other temporary borrowings.

Information on our funding mechanisms and our limits on borrowing are outlined in our revenue and financing policy and our liability and investment management policy included as part of our funding and other financial management policies information.

Council's current funding arrangements provide for the annual

appropriation to be received in July of each year, allowing the Council to portion the fund into term investments, which will become available during the year. However, this will periodically mean the Council will utilise an overdraft facility to fund operational expenditure, particularly at the end of the financial year where payments to suppliers may be delayed and interest charges incurred on the overdraft facility. Council expects to utilize the bank overdraft for each year of the 2024-34 Long-Term Plan, with the annual appropriation receipt moving the cash balance into a positive position.

Rates

Our rates income is nominal in nature and equates to between 5-10% of Council's total funding.

The low level of rates is unusual for a council and arises because Chatham Islands Council has the lowest number of rateable units of any council in New Zealand; meaning Council does not have the population base to sustain its operating requirements. The majority of Council's income is from the Government.

As an increase in rate is considered to have a minimal impact on our overall funding and will not significantly influence project costs. However, it is desirable for contributions from our ratepayers at a rating unit level to be similar to that of similar rural Councils with a small population.

Council will review every three years the rating and estimated council dues amounts expected to be set and compare these with other benchmarked councils, ensuring our rates charged remain reasonable for the service provided. If Council considers these to be appropriate, it will increase rate levels by a consistent inflationary adjustment as applied to expenditure until the next review. At Council's discretion an annual rate increase of up to 15% on the prior year may occur, to bring the rating payments at a unit level to be comparable to other small, rural Councils.

Information on our funding mechanisms are included in our Revenue and Financing Policy.

Renewals and depreciation

Council does not recover the cost of future renewals work through depreciation. It is common practice among other Councils to plan and fund future renewal work through rates. However, we do not have the rating base to support such activity, nor does the annual Crown contribution cover the cost of depreciation. Future renewals require funding support from the Government or Council is unable to fund the renewal. Council has insufficient reserves to cover our infrastructural renewals programme.

Investments

Council generally holds investments for strategic reasons, including the retention of a local banking facility on-island. Generating a commercial return on strategic investments is considered a secondary objective.

Whilst acknowledging the financial constraints Council operates under, it is desirable to build financial resilience by directing excess cash funds into an investment account. Therefore, in years where the operating cash balance exceeds \$200 thousand, any unearmarked funds are to be transferred to an investment account, with funds to be held in an ANZ bank account, with the best available negotiated rate.

Council has no other financial investments or equity securities.

Our level of service strategies

Council's focus is to invest in infrastructure to meet community outcomes and maintain these assets accordingly. Council does not have the resources to increase rates or sustain significant debt levels without assistance and therefore is reliant on external support to meet any revised legislated or service standards.

The current financial assistance package does not provide cover for the use of our assets over time (depreciation) and therefore, where an improvement or replacement of our infrastructure is required, we have no available funds set aside for such work, requiring a separate approach to the Government to support the development. The exception is our roading programme, funded by Waka Kotahi NZ Transport Agency.

In recent times, where development is required to increase levels of service such as legislation setting higher standards of service, Council has been able to source funds to meet the revised requirements, albeit with a transitional period of non-compliance. Assuming appropriate funding is provided, it is considered that Council has the ability to maintain existing levels of service and meet any additional standards. If funding cannot be sourced, projects will be deferred until appropriate funding can be found. This may mean minimal best practice standards may not be met within the prescribed timeframes with a higher risk of asset failure.

The limits set on rates and borrowing levels are unlikely to have an impact on Council's ability to meet existing levels of service or any additional demands, as reliance is placed on other funding, such as Government support to meet service demands.

Council has identified the following significant infrastructural issues facing the community over the next 30 years.

| AGEING INFRASTRUCTURE | |
|---|--|
| <p>Roading: More than half of Council's aging or end-of-life bridges have been replaced with large culverts over the past 30 years, but several of the remaining bridges have challenges that make a direct culvert replacement less straight forward i.e. topography, length of span, land acquisition issues and remoteness of those located on Pitt Island. Council have two bridges that are of immediate concern, Maipito (the next planned bridge replacement during 2024-27) and the Lower Nairn Bridge (which forms the critical lifeline network link in Waitangi).</p> <p>Many of the original culverts installed across the network were made from corrugated steel, which deteriorates rapidly in the coastal and peaty Chatham Islands environment. Additionally, the age of a number of culverts is unknown but steel culverts that are starting to fail indicate that many are at the end of their useful life. This has led to an increasing requirement for unscheduled culvert replacements. This bow wave in demand for replacements is beginning to abate and it is becoming easier to forecast and programme culvert replacements again.</p> <p>Drinking water: Following Council taking over management of the Kaingaroa scheme in 2009, a significant upgrade was completed in 2014. The intake structure urgently requires lengthening due the low lake level in summer months. There is limited information about the Kaingaroa reticulation, however based on frequent pipe breakages and leakage it is now at the end of its useful life. The Waitangi scheme was installed in 2004, some remedial work has been undertaken, but further is required to further meet current legislation and best practice.</p> <p>Wastewater: Components of the wastewater treatment plant at Waitangi are at or near the end of their useful life and now require significant repair or replacement. The land application system also needs replacement as well as extension to minimize the risk of localized ponding and run-off. The wastewater reticulation is expected to have a remaining useful life exceeding 30 years.</p> <p>Solid waste: While not ageing per se, the sanitary landfill will require ongoing capital expenditure as the capacity of a particular landfill cell is reached, requiring new landfill cells to be constructed and old cells to be capped off.</p> | |
| Principal responses | Do nothing |
| <p>Roading: Council to monitor all bridges with an estimated 10-20 years life remaining. This is performed during the biennial bridge inspections, which also identifies key maintenance interventions required to extend the life of the structures.</p> <p>Continue replacing end of life steel culverts with modern HDPE pipes with much better corrosion resistance and far longer service lives.</p> <p>Drinking water: Urgent remedial works will continue to be carried out as funding allows to protect public health and aim to meet regulatory requirements as possible.</p> <p>Wastewater: Urgent remedial works will continue to be carried out as funding allows to protect public health and minimise adverse environmental effects associated with the treated wastewater discharge.</p> | <p>Roading: Failing to perform renewal or replacement work on older bridge structures could lead to structural failure of the bridge. This may pose a safety risk to road users, and incur a significant sudden costs to Council in requiring an unscheduled emergency replacement. If failed culverts are not replaced, they may become blocked or collapse entirely. Blocked culverts do not drain, and can lead to pavement damage from excess surface water. Collapsed culverts create a depression in the road, which requires expensive pavement repairs, and poses a safety hazard and may cause accidents or vehicle damage.</p> <p>Drinking water: The existing networks at Waitangi and Kaingaroa pose public health risks associated with loss of water supply (due to excessive leakage and unsustainable abstraction of water) and potential ingress of harmful contaminants (due to breaks or backflow).</p> <p>Wastewater: Failure of the existing wastewater treatment system poses the risk of failing to meet resource consent and associated risks of inadequately treated wastewater being discharged to land, localised ponding, and runoff.</p> |

MAINTAINING EXISTING LEVELS OF SERVICE AND INCREASING DISPARITY OF SERVICE TO MAINLAND NEW ZEALAND

Drinking water: Council is required to provide a sustainable drinking water supply that meets current drinking water standards. Demand from the Tikitiki bore and the existing Waitangi treatment plant does not meet the current drinking water standards. For Kaingaroa, the low water level in Lake Rangitai in recent summers due to limited rainfall has reduced water availability and the existing treatment plant does not meet the current standards. All other residents on the Island operate on rainwater collection and/or private bores and, if this is not sufficient (e.g. during extended dry periods), residents may top up their supply from Council's public water tank in Waitangi. In recent years, Chatham Island has experienced much longer dry periods and demand for water from Council's public water tank has increased.

Wastewater: The treated wastewater discharge from Waitangi wastewater plant is required to comply with the resource consent (Council's Resource Management Document). Remedial work is required for the existing plant to continue to achieve the required discharge limits.

Solid waste: Because of the small size of the settlements on-Island, there is no formal waste collection service. Residents are required to take their waste to a transfer station or materials processing facility at Te One. This means, there have been several 'unofficial' waste sites created on-Island, which are unlikely to meet waste management standards. Creating transfer stations that are easy to use, will hopefully encourage patronage.

In addition, the types of waste that needs to be dealt with on-Island are somewhat unique, which presents challenges. For instance, the amount of cardboard that needs to be disposed of is high because many goods are brought to the Islands in cardboard boxes.

The quantities of waste are low compared to other local authorities, which means that there are very minor quantities of some wastes that need disposal, such as hazardous wastes, which need to be transported to mainland New Zealand. The cost of doing so is much higher than elsewhere in mainland New Zealand.

Other differences in the Chatham Islands compared to mainland New Zealand solid waste management and minimisation services include:

- Potential issues with storing quantities of recovered resources and hazardous wastes because of the unavailability of shipping
- The high cost of transporting such wastes and diverted materials to disposal outlets/markets
- The dependence on support from mainland New Zealand to process recyclables received from the Chatham Islands
- Lack of options for disposal or re-use of some diverted materials such as glass.

| Principal responses | Do nothing |
|---|--|
| <p>Drinking water: A significant upgrade to Waitangi water supply and an extension to Te One has been allowed for as funding support allows, which will address future security of supply and compliance. Ongoing urgent remedial works will occur at Kaingaroa and Waitangi as funding allows to improve water supply safety and resilience. A scheme is also proposed to enable ratepayers to install approved water tanks to reduce the demand on Council's drinking water supply, and then repay the costs via a targeted rate on the property over 10 years.</p> <p>Wastewater: Urgent remedial works are planned as funding allows. Significant renewals at the wastewater treatment plant site have been allowed to protect public health and minimise adverse environmental effects associated with the treated wastewater discharge.</p> <p>Solid waste: Future work programmes are dependent on funding being made available to implement subsequent developmental stages. If funding is not made available, works are delayed, increasing the disparity in services offered on-Island and focusing on stop-gap solutions. A creative approach, including developing waste management and minimisation solutions with other councils, is required to address a number of these issues.</p> | <p>Drinking water: Failure to upgrade the water supplies poses the risks of insufficient quantity of raw water and microbiological contaminants being present within the water supplied.</p> <p>Wastewater: The existing wastewater treatment plant poses risks associated with inadequately treated wastewater being discharged to land, localised ponding, and runoff.</p> <p>Solid waste: Over time the discrepancy in services between the Chatham Islands and mainland New Zealand will increase, likely increasing the number of 'unofficial' disposal sites on-Island. Such waste management approaches may result in unintended environmental consequences.</p> |

IDENTIFYING FUTURE NEEDS OF SOLID WASTE MANAGEMENT AND MINIMISATION ASSETS

The solid waste management and minimisation work undertaken recently involved the commission of a new landfill, new weighbridge at Te One, and a new Reuse Facility. Consideration for deterioration of these and other existing assets over time will need to be assessed given the environment of the Islands.

| | |
|---|---|
| Principal responses | Do nothing |
| <p>Future planning will be based on identified need based on waste management and minimisation activities. The sanitary landfill is designed to consist of a number of stages, with the commencement of each stage based on the available capacity within the landfill which is affected by the amount of waste being disposed of into the landfill each year; the density at which the waste is compacted when placed into the landfill; and the amount of soil material used to cover the waste to mitigate against nuisances.</p> <p>When each stage has an assessed capacity of less than two years remaining, the next stage will be constructed, subject to funding availability. When each stage has been filled, it will be capped off to help control storm water runoff and reduce leaching. A conservative estimate for the Owenga landfill will require construction to begin on a new stage in 2026; this will require a separate approach to the Ministry for the Environment to assist with funding requirements.</p> | <p>If no further work occurred, Council waste management and minimisation facilities on the Island would cease, creating a need to ship all waste products off-Island, at high cost to the Council. This may require specialist shipping suppliers and contracts with other councils to deal with the Islands' waste. The cost of freight may also be an issue.</p> |
| SUPPLY OF SUITABLE PAVEMENT MATERIALS AND OTHER LOCALLY SOURCED MATERIALS | |
| <p>Roading: At some point in the future, the existing basalt rock quarries will either be exhausted of good rock seams or accessing those seams may become uneconomical. Therefore, planning to identify possible future quarry locations and entering into negotiations with landowners will need to occur. However, it is difficult to secure good sources of suitable rock as some landowners are hesitant to allow quarry development on their land, outside of the existing quarries. The increased depletion of Waitaha Basalt material during the Longer and Stronger runway extension works has brought this supply risk forward.</p> <p>The quarry locations serve the North of the Island well, but the south and east of the Island are poorly served. Hauling quarry material over Target Hill to supply Waitangi Wharf – Owenga Road overloads sections of the older sealed pavement on the hill and increases the rate of deterioration in the pavement. The hauls distances from the Waitaha quarries to sites on Tuku Road are long and increase the cost and time of works in the southern end of the Island.</p> | |
| Principal responses | Principal responses |
| <p>Roading: The maintenance contractor is responsible for negotiating existing and future quarry agreements to secure pavement material supply. Early investigations have been undertaken to try and identify other suitable quarry sources, Identifying quarry sources between Target Hill and Owenga, and towards the Tuku Gully would improve efficiency of supply.</p> | <p>Roading: The maintenance contractor is responsible for negotiating existing and future quarry agreements to secure pavement material supply. Early investigations have been undertaken to try and identify other suitable quarry sources. Identifying quarry sources between Target Hill and Owenga, and towards the Tuku Gully would improve efficiency of supply.</p> |

| MAINTAINING EXISTING LEVELS OF ROAD SAFETY | |
|--|---|
| <p>Roading: Road crashes are always a concern for community safety and wellbeing. Over recent years the number of serious injury crashes has been relatively low. With the planned improvements to drainage and pavements during this Long-Term Plan, the level of service experienced by motorists is likely to improve. This could lead to higher vehicle speeds and the existing road alignments may not be suited to such speeds, increasing the risk of a serious injury crash occurring.</p> <p>Financial considerations:</p> | |
| Principal responses | Principal responses |
| <p>Roading: In an effort to try and maintain the low frequency of serious injury crashes, Council will continue to conduct the biennial road safety inspections to identify safety deficiencies that need to be addressed to improve safety for road users. The safety inspections provide a clear focus on safety issues, that include items which could otherwise be missed i.e. missing edge marker posts, dirty signs etc.</p> <p>Road safety promotion on the Island occurs via a local Council coordinator. This has been very successful, with the Weka themed campaign striking a chord with local residents, and particularly with school-aged children, who will hopefully carry good road safety knowledge with them as they grow older.</p> | <p>Roading: Failure to conduct the biennial road safety inspection may lead to necessary safety hazards not being identified if it was left solely to Stantec identifying items during their quarterly visits. The intention of the quarterly visits is typically wide-ranging over numerous pieces of work. Missed safety issues could result in a serious injury crash if not identified in a timely manner. Without a road safety programme, there would be no community activities that would help promote road safety. This function would be left predominantly to television and radio advertising.</p> |
| COST OF FREIGHTING MATERIALS TO/FROM THE ISLANDS, SHIPPING CERTAINTY | |
| <p>Currently only one shipping company operates between mainland New Zealand and the Chatham Islands resulting in a lack of competition on freight charges. With the new Waitangi wharf completed, it is possible that other companies may be encouraged to include the Chatham Islands in their shipping network. The cost of freighting materials to the Islands has increased since the new Waitangi wharf was completed, instead of the anticipated reduction in costs that was expected to arise from the greater resilience provided to the loading/unloading of berthed ships. The more freight increases, it incrementally reduces the value of work constructed on the network.</p> | |
| Principal responses | Do nothing |
| <p>Council will continue to work alongside the other three entities on the island for a review into freight pathways on for the island.</p> <p>Council to factor the higher costs of shipping into cost estimates for larger capital works, so that the appropriate levels of funding are secured from partners.</p> | <p>No change in the status quo.</p> |

| PREDICTED EFFECTS OF CLIMATE CHANGE | |
|---|--|
| <p>Roading: The threat that climate change poses to infrastructure cannot be ignored. Council has a minimal number of roads situated at or just above sea level along coastlines, which would be a concern with rising sea levels. The main area of concern is Waitangi, where the combination of higher sea levels and a severe storm could adversely affect the road connecting Waitangi wharf. Most other roads on the Island are well above sea level or are inland.</p> <p>Climate change is likely to mean that an increasing number of severe storms will occur, which would put more pressure on drainage and bridge assets to cater for the larger volumes of water passing through them. For bridges and large culverts, this could amount to large debris such as trees being carried downstream and hitting the structure, potentially causing significant damage.</p> <p>Drinking water and wastewater: Climate change may result in change in rainfall patterns with extended periods of little or no recharge of water aquifers/lakes (i.e. drought) and more frequent storms with increased peak flows to the wastewater system, disruption to power supply, and damage to low-lying water and wastewater assets. Chatham Island has experienced much longer dry periods in recent years. For Kaingaroa, the low water level in Lake Rangitai in recent summers due to limited rainfall has reduced water availability; this has been somewhat mitigated by recent installation of a community rain water tank for non-potable water use e.g. crayfish pot washing. For Waitangi, demand for water from Council's public water tank has increased from residents on island that operate on rainwater collection and/or private bores. As a wider issue, the Islands' drinking water resources (surface water and ground water), their sustainable yield, and their susceptibility to drought stress from climate change is not fully understood.</p> <p>Whilst climate change is incorporated into asset design planning, changes cannot be made to current infrastructure designs without additional financial support from central government. Consequently, necessary upgrades to infrastructure to mitigate the effects of climate change may be delayed, creating a risk that our assets may not be able to withstand a climate event. If a climate change event occurred on the Chatham Islands, Council would require support from Central Government to address areas requiring repair.</p> | |
| Principal responses | Do nothing |
| <p>Roading: Monitor the long-term integrity of the sea walls in Waitangi, to ensure that no degradation is occurring and to intervene with maintenance as required.</p> <p>Larger climate change factors may need to be applied to culvert sizing calculations than are already adopted. Key structures may need to have their upstream channels reviewed for large trees that might be susceptible to falling into the watercourse in a significant weather event.</p> <p>Drinking water: The Waitangi upgrade (depending on levels of funding) will provide greater resilience in the water supply with more storage, less reliance on power, and ability to use the Tikitiki bore in an emergency. A scheme is proposed to enable ratepayers to install approved water tanks to reduce the demand on Council's potable water supply, and then repay the costs via a targeted rate on the property over 10 years.</p> | <p>Roading: If the sea walls supporting the road towards Waitangi wharf were to fail and cut off access, it would have major implications for the Island. The delivery and export of goods would be put at risk, which would have significant financial implications for the community.</p> <p>Failure to properly manage tree growth in waterways may lead to debris washing out culverts in the event of a storm, creating pavement failures and cutting of parts of the roading network.</p> <p>Drinking water: If Waitangi or Kaingaroa schemes were to run out of a reliable source of drinking water, it would have devastating effects on all residents and the local economy of the Island. The community and local industry would be reliant on rainwater and bottled water imported from mainland New Zealand until an alternative supply was established. This situation would be further worsened because most properties on the reticulated schemes no longer have an onsite tank for rainwater collection.</p> |
| LIMITED POPULATION GROWTH AND AGEING POPULATION | |
| <p>Currently there is limited population growth, which means the rating base to fund capital upgrades will remain static, unless further financial support is provided to enable economic growth to occur. In addition, the population is ageing, which will provide challenges and opportunities for infrastructure networks, particularly for roading and footpaths.</p> | |
| Principal responses | Do nothing |
| <p>Seek external funding from Government to fund all or the majority of capital renewals and upgrades.</p> | <p>No change in the status quo.</p> |

30-year projections for infrastructure work

Financial estimates of the projected capital and operating expenditure for the next 30 years are disclosed in the following tables only where funding has been secured for the activity. For capital work, only works related to transportation, roading and coastal networks has been secured, other areas requiring critical investment to our three waters, waste management and wharf infrastructure have been disclosed separately as unfunded transaction in the groups of activities and financial information sections.

| <i>Transportation, roading & coastal networks</i> | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 | 2034-39 | 2039-44 | 2044-49 | 2049-54 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| To improve the level of service | 1,045 | 350 | 93 | 101 | 326 | 724 | 101 | 326 | 724 | 101 | 2,319 | 2,721 | 3,193 | 3,746 |
| To replace existing assets | 2,703 | 3,725 | 3,142 | 2,949 | 4,065 | 3,428 | 3,218 | 4,433 | 3,739 | 3,512 | 21,509 | 25,238 | 29,615 | 34,751 |
| Total | 3,748 | 4,075 | 3,235 | 3,050 | 4,391 | 4,152 | 3,319 | 4,759 | 4,463 | 3,613 | 23,827 | 27,959 | 32,808 | 38,497 |

| <i>Operational expenditure</i> | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 | 2031/32 | 2032/33 | 2033/34 | 2034-39 | 2039-44 | 2044-49 | 2049-54 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| Transportation, roading & coastal networks | 1,873 | 2,030 | 2,029 | 2,043 | 2,216 | 2,215 | 2,229 | 2,417 | 2,415 | 2,431 | 13,737 | 16,119 | 18,915 | 22,195 |
| Three waters supply & treatment - drinking water | 344 | 356 | 369 | 382 | 395 | 407 | 420 | 433 | 446 | 459 | 2,540 | 2,981 | 3,498 | 4,104 |
| Three waters supply & treatment - wastewater | 197 | 204 | 212 | 219 | 226 | 234 | 241 | 248 | 255 | 263 | 1,456 | 1,709 | 2,005 | 2,353 |
| Waste management & minimisation | 727 | 754 | 780 | 810 | 839 | 868 | 896 | 925 | 954 | 983 | 5,428 | 6,370 | 7,474 | 8,770 |
| Total | 3,141 | 3,344 | 3,390 | 3,454 | 3,676 | 3,724 | 3,786 | 4,023 | 4,070 | 4,136 | 23,162 | 27,179 | 31,892 | 37,422 |

Funding, and other financial management policies

Revenue and Financing Policy

What's changed to the policy in the last Long-Term Plan?

The revenue and financing policy has been updated to give consideration to the Local Government (Rating of Whenua Māori) Amendment Act 2021 and the Te Ture Whenua Māori Act 1993.

Guiding principles

To ensure Council manages its finances prudently, the following guiding principles have been applied when considering our funding sources as part of the revenue and financing policy:

- Funding sources will be at a level to cover our net funding requirements. If funding is insufficient, planned expenditure will be reduced.
- The primary revenue source will be government grants, but affordability of rates and council dues will be considered.
- Targeted rates are collected from properties that are the direct beneficiaries of services where these can be identified with the incidence of rates to be fairly spread where possible.
- The number and costs of projects instigated are acceptable to the community, substantially funded by Government grant.
- The needs of current and future ratepayers are considered, including adhering to limits and ratios set in our financial strategy and other policies.

The Council acknowledges and affirms the special relationship between the Māori and Moriori people and the Crown agreed in the Treaty of Waitangi. The Council recognises that land is a taonga tuku iho of special significance to Māori and Moriori people and, for that reason, promotes the retention of that land in the hands of its owners, their whanau, and their hapu, and to protect wahi tapu: and to facilitate the occupation, development, and utilisation of that land for the benefit of its owners, their whanau, and their hapu.

Funding mechanisms

Council has identified available funding sources for both operating and capital expenditure. For the most part, funding sources for both operating and capital expenditure are similar, where the rationales differ, these are separately identified.

Government and other grants

With the small size of our ratepayer base, Council is unable to operate sustainably from rates alone. Consequently, approximately 88% of our operating and capital funding sources are provided from grants. We rely heavily on Government to support us in supplying essential infrastructure and services to the Islands, in the form of full grant or increased assistance to repay debt. If funding for a capital project cannot be confirmed, works will be delayed until funding is assured. This may result in existing assets deteriorating, due to lack of maintenance and investment and levels of service Council is able to provide may reduce. This is a risk Council has agreed to undertake to ensure intergenerational equity.

The Crown provides Council with an annual contribution to meet our statutory obligations as a council with both regional and district functions. Levels of assistance are currently confirmed annually in May as part of the budget announcement. The approach to funding Council creates a lack of funding certainty for Council. Council budgets for either future indicative amounts, or if unknown, prior status quo funding levels. Operational and capital expenditure budgets are adjusted once support is confirmed.

Financial support is also provided by the Waka Kotahi NZ Transport Agency for road works, currently negotiated support is at 88% of total operational and capital expenditure, we expect this level of support to continue.

The Council may receive additional one-off grants to support operational or capital projects, these are generally not budgeted due to the uncertain nature of the funding.

Rates

Most of our funding sources are provided from grants, leaving between 5-10% of funding to be provided from general and targeted rates.

Historically, the amount raised from ratepayers was more nominal in nature, reflecting a level Council felt was a reasonable contribution (including council dues) when compared with what a mainland ratepayer would contribute for a similar level of service. Council aims to charge rates at a level comparable to other small, rural Councils.

Given our council is the most remote in location and smallest in size of all New Zealand councils, a meaningful comparison is difficult, especially considering the level of service we can provide to our ratepayers.

To determine whether our rating amount remains reasonable, compared to similar councils of a small or isolated nature, Council will review every three years the rating and estimated council dues amounts expected to be set and compare these with other benchmarked councils, ensuring our rates charged remain reasonable for the service provided. If Council considers these to be appropriate, it will remain reasonable to increase levels by a consistent inflationary adjustment as applied to expenditure until the next review, unless determined otherwise by Council.

Our approach to setting, assessing and assigning rates is further detailed in our rating policy and Council funding impact statement and rating information.

Council dues

A unique aspect of Council is that the Chatham Islands Council Act 1995 allows the Council to charge Council dues. These take the form of a tax on the import and export of goods for transport of goods by sea or air and are payable by the carrier of the goods. The rates of tax vary by commodity, charges are detailed as part of our fees and charges policy.

Council dues are expected to form approximately 2% of Council's funding sources. Council dues are a mechanism for Council to receive a contribution from people or entities working on the island, who benefit from Council services, but do not necessarily contribute financially to Council, as they are not ratepayers. All Council dues are classed as general funds, and allocated across the organisation, to fund all of Council's activities.

Loans and asset sales

Borrowing will not generally be used to fund operating expenditure. Council may borrow funds to finance specific capital projects, where it is in line with the Council's liability and investment management policy and Council are able to afford the cost of the debt repayment. Council may consider selling assets no longer required for Council purposes.

Fees, charges and other income

Fees, charges and other income consists of approximately 4% of Council's expected funding. Fees and charges can be applied where the users of a service can be identified and charged according to their use of the service. Fees and charges for a statutory service are set on a cost recovery basis, which incorporates overhead charges. Refer to our statement of fees and charges for a summary of these fees.

Other revenue sources may be used where appropriate to support operational or capital expenditure projects and to reduce the reliance on other funding. The aim is to maximise the return to Council and to use funds to reduce the amount of revenue required to be raised elsewhere.

Where fees, charges and other income can be directed to a particular activity, the revenue will be matched with the corresponding expenditure for the Council activity. Otherwise, other income will be classed as general funds, and allocated across the organisation, to fund all of Council's activities.

Development, financial and other lump sum contributions are not normally used as a funding source for Council.

Application of funding principles to the funding of operating and capital expenditure for each activity

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|---|--|---|---|
| Leadership & Community partnerships: | | | |
| <p>Resilient community Providing the opportunity and appropriate information for the community to participate in the Council's major decisions is of primary importance to the Council. The activity ensures democratic processes are undertaken appropriately and supports the work of our elected members.</p> <p>Embracing diversity Council is committed to ensuring the diverse voices of our community are heard. We will work with imi and iwi to ensure that appropriate regard is made to miheke/taonga and other culturally significant matters. Council recognises the importance of the Te Tiriti o Waitangi/Treaty of Waitangi.</p> <p>Building growth A significant portion of Council's resources are directed towards building and strengthening relationships, particularly with central government agencies. Council believes this is the most effective method to ensure future funding needs are met. Council also advocates for additional funding to benefit the island, which if successful provides employment and other growth opportunities for the island, potentially including improved infrastructure.</p> | <p>The community benefits from and contribute to the Council's decision making process, this includes an open and transparent decision-making process.</p> <p>The benefits occur predominately within the year in which the expenditure is incurred.</p> | <p>Legislative requirements mandate engagement with the community including involving Moriori and Māori in decision-making.</p> <p>The community directs Council through the consultative and election process.</p> | <p>Appropriate engagement with the community ensures a greater awareness and understanding of Island issues, where the Council can make informed decisions.</p> <p>Community representation and engagement is considered a public good. This is because the benefit accrues to individuals equally. All operational and capital costs are funded from the annual Crown contribution and allocated general funds. The contribution of the public to the decision making process is valuable as it ensures public expectations are known and considered whilst promoting public accountability of Council. This funding source is deemed to be the most efficient and equitable.</p> <p>Funding sources:</p> <p>Grant and other income directly associated with the activity: 100%</p> <p>General funds: 34.4%</p> <p>Annual Crown contribution: adjusted to balance activity funding differences</p> |

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|---|--|--|---|
| Transportation, roading & coastal networks: | | | |
| Roading networks: | | | |
| <p>Resilient community We provide a safe and resilient transport network, which is safe to use and accessible to all. A reliable transport network also allows for emergency services to safely get to people in need.</p> <p>Embracing diversity In creating our roading works programme, Council consults with Waka Kotahi NZ Transport Agency, along with imi and iwi to ensure that appropriate regard is made to miheke/taonga and other culturally significant matters.</p> <p>Building growth Our transport system is operated in an effective and efficient way to meet the needs of residents and businesses. The road network is critical to the movement of goods which enables our economy to thrive and grow.</p> <p>Sustainable action Council considers land use sustainability and minimising the impact of climate change on our environment in transport planning</p> | <p>The community benefits from increased transportation links, including moving goods to reach markets and people to work, providing vital connections for economic growth, and greater access and mobility.</p> <p>The benefits accrue immediately and into the future.</p> | <p>Need is created from the public and road users.</p> | <p>Provision of a roading service is considered a public good. Funding will be principally from Waka Kotahi NZ Transport Agency grants. Any shortfall is expected to come from targeted roading rates set as a fixed sum per rating unit, and the remainder from the annual Crown contribution and allocated general funds.</p> <p>Funding sources:</p> <p>Roading targeted rate 100%</p> <p>Waka Kotahi NZ Transportation Agency grant 100%</p> <p>Grant and other income directly associated with the activity: 100%</p> <p>General funds 9.0%</p> <p>Annual Crown contribution: adjusted to balance activity funding differences</p> |

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|--|--|--|---|
| <i>Coastal transportation networks & navigational safety:</i> | | | |
| <p>Resilient community Our coastal and navigational work provides recreational opportunities to our community and improves health and social well-being. Council can respond and recover from the impact of all marine hazards, ensuring maritime management protects and reduces the impact of harm to the environment and supporting the economic development and sustainability of the fishing industry.</p> <p>Building growth Fishing and tourism contribute a large amount to our Islands' economic prosperity. Access to water and recreational/commercial activities will be key to our Islands' continued growth.</p> | <p>The community benefits from safer coastal areas for recreation.</p> <p>Commercial and recreational users benefit from safe water transport.</p> <p>The benefits accrue immediately and into the future.</p> | <p>Need is created by recreational and commercial coastal water users.</p> | <p>The provisions of harbour safety and navigation services provide both public and private benefits. The public, including small vessel recreational users benefit from the provisions of these services. User charges are levied on larger vessels, who are direct beneficiaries of the services. Remaining operating and capital costs are funded from a mix of Crown contribution and allocated general funds.</p> <p>Funding sources: as above</p> |

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|--|--|---|---|
| Three Waters supply & treatment: | | | |
| <i>Drinking water:</i> | | | |
| <p>Resilient community Acknowledging our funding constraints, we aim to provide water supplies that are safe to drink, with supply continuity appropriate for firefighting purposes. Council considers water supply an essential service to our community and recognises the need for resilient infrastructure.</p> <p>Sustainable action Our water schemes take water from our environment and require a resource consent. We aim to manage water takes so the impact is not detrimental to our surrounding environment and the impact of climate change on our environment is minimised.</p> | <p>The community benefits from the drinking water supply activity being managed so the impact of the water take does not prove detrimental to the surrounding environment, nor community health.</p> <p>The benefits accrue immediately and into the future.</p> | <p>Need is created from residents connected to the Waitangi and Kaingaroa drinking water schemes.</p> | <p>This activity is largely a private service to those connected to the drinking water supply scheme. However, there remains public good in that the environment and drinking water supply is managed and protected by the scheme.</p> <p>Capital expenditure is to be funded by Government grant or debt.</p> <p>Operating expenditure is funded by a fixed targeted rate on all rating units with a connection to the drinking water supply scheme, the annual Crown contribution and allocated general funds.</p> <p>Funding sources:</p> <p>Water targeted rate 100%</p> <p>Grant and other income directly associated with the activity: 100%</p> <p>General funds 2.5%</p> <p>Annual Crown contribution: adjusted to balance activity funding differences</p> |

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|---|--|---|--|
| Wastewater: | | | |
| <p>Resilient community Acknowledging our funding constraints, we aim to provide quality wastewater treatment that minimises overflows. We aim to ensure wastewater is collected and treated without causing a hazard to public health or unpleasant odours. Council considers wastewater supply an essential service to our community and recognises the need for resilient infrastructure.</p> <p>Sustainable action Our wastewater is treated and discharged into our environment. We aim to sustainably manage this, so the impact of the discharges does not adversely affect the health and cleanliness of the receiving environment and the impact of climate change on our environment is minimised.</p> | <p>The community benefits from waste material being processed or disposed of in an appropriate and sustainable manner. These activities will be managed to minimise the impact on the environment.</p> <p>The benefits accrue immediately and into the future.</p> | <p>Need is created from residents and tourists inhabiting the Islands who are connected to the wastewater scheme.</p> | <p>This activity is largely a private service to those connected to the Waitangi wastewater scheme. However, there are public good demands in that the environment is protected by the scheme.</p> <p>Capital expenditure is funded from Government grants. Operating expenditure is funded by a mix of a fixed targeted rate on all rating units with a connection to the wastewater scheme, the annual Crown contribution and allocated general funds.</p> <p>Funding sources:</p> <p>Wastewater targeted rate 100%</p> <p>Grant and other income directly associated with the activity: 100%</p> <p>General funds 3.2%</p> <p>Annual Crown contribution: adjusted to balance activity funding differences</p> |
| Flood protection and stormwater drainage: | | | |
| <p>Resilient community Council aims to safely transfer stormwater runoff to minimise harm and property damage and so people can move safely during wet weather.</p> <p>Sustainable action We manage stormwater so that the impact of any discharge minimises the impact of climate change on our environment and does not adversely affect the health and quality of the natural environment.</p> | <p>The community benefits from effective drainage on-island and controlling the level of Te Whanga lagoon to prevent flooding.</p> <p>The benefits accrue immediately and into the future.</p> | <p>Need is created from residents.</p> | <p>This activity involves drainage from the public roading network and is largely categorised as a public good.</p> <p>Capital and operating costs are funded from a mix of annual Crown contribution and allocated general funds.</p> <p>Funding sources: as above</p> |

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|--|--|--|--|
| Waste management & minimisation: | | | |
| <p>Resilient community Rubbish and recycling collection services ensure our environments are functional, pleasant and safe. We promote the sustainable use of resources and provide sustainable alternatives to landfill disposal.</p> <p>Sustainable action We protect our natural environment by providing waste disposal services for our communities and minimising the impact of climate change on our environment. We reduce the impact of landfill disposal by providing other services to divert waste from landfill and reduce waste production. Our facilities comply with resource consents, and we ensure that we have operational plans for our services and site management plans for the facilities we operate.</p> | <p>The community benefits from waste material being processed or disposed of in an appropriate and sustainable manner. These activities will be managed to minimise the impact on the environment.</p> <p>The benefits accrue immediately and into the future.</p> | <p>Need is created from residents.</p> | <p>This activity is about effectively managing levels of waste on the island, ensuring waste is disposed of appropriately and in an environmentally conscious manner. A facility that addresses waste effectively provides an indirect benefit to the public, as residents are less likely to store waste on individual properties, creating a risk of unwanted substances entering the environment. Therefore a portion of the costs will be funded from targeted rates and user pays.</p> <p>Capital expenditure is funded from Government grants. Operating expenditure is funded by a mix of a fixed targeted rate on all rating units, user charges, the annual Crown contribution and allocated general funds.</p> <p>Funding sources:</p> <p>Waste management and minimisation targeted rate 100%</p> <p>User charges 100%</p> <p>Grant and other income directly associated with the activity: 100%</p> <p>General funds 1.8%</p> <p>Annual Crown contribution: adjusted to balance activity funding differences</p> |

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|--|--|--|---|
| Community development & emergency management: | | | |
| <i>Community services:</i> | | | |
| <p>Resilient community We provide community open spaces and facilities enabling our community to participate in recreational and cultural opportunities. The library provides resources that support educational, creative, cultural and business activities. We provide financial assistance to community groups to support cultural, heritage and other benefits within our community.</p> <p>Embracing diversity Areas of cultural significance are managed and protected. Our community is aware and involved in conservation and restoration work. We provide facilities that enable communities to celebrate their heritage and creativity. Cemeteries provide a location for remembrance.</p> | <p>The community benefits from on-island collaboration opportunities. Benefits accrue both in the immediate and long-term.</p> | <p>Need is created from residents.</p> | <p>The community benefits from Council creating the environment in which communities can enjoy parks and reserves, enhancing health and wellbeing. Capital and operating costs are funded from a mix of Crown contribution, general rates and allocated general funds. Funding sources: General rate 100% Grant and other income directly associated with the activity: 100% General funds 33.3% Annual Crown contribution: adjusted to balance activity funding differences</p> |
| Emergency Management: | | | |
| <p>Resilient community Our civil defence and emergency management system promotes safety of people and a resilient community.</p> <p>Sustainable action Council can respond and recover from the impact of emergency events. Ensuring appropriate strategies are in place to manage and reduce the impact of harm to the environment when an emergency event occurs.</p> <p>Building growth</p> | <p>The community benefit from maintaining an emergency response capability. Benefits occur mostly in the year the emergency event occurs. However, there is residual benefit from growing knowledge and experience.</p> | <p>Need is created to provide advance warning systems to detect emergency events and providing a response.</p> | <p>A coordinated emergency management system is a public good in respect of reduction, readiness, response, and recovery across the region. Oil spill response is for the public good, but the shipping industry can be identified as an exacerbating factor. Capital and operating costs are funded from a mix of Crown contribution and allocated general funds. Funding sources: as above</p> |

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|---|---|---|--|
| Fishing and tourism contribute a large amount to our Islands' economic prosperity. Supporting the economic development, sustainability and resilience of these activities will be key to our Islands' growth and recovery after any emergency event. | | | |
| Environmental protection, compliance & planning: | | | |
| Biosecurity: | | | |
| <p>Embracing diversity We work with imi and iwi to ensure that appropriate regard is made to miheke/taonga and to retain our unique island biodiversity.</p> <p>Building growth We work with landowners to enhance the prosperity and security of their land by developing plans to managing pests that threaten our environment. By protecting our unique environment, we will provide future opportunities for growth within our community, particularly related to tourism.</p> <p>Sustainable action Our unique ecosystems, landscapes and indigenous biodiversity are valued and stewardship/t'chiekitanga/kaitiakitanga exercised to safeguard our environment for future generations.</p> | <p>Individuals and the community benefit from improved image and retention of productive values of land, reducing adverse effects of natural resources.</p> <p>Furthermore, the community benefits from protecting biodiversity by the containment of plant and animal pests.</p> <p>Benefits accrue both in the immediate and long-term.</p> | <p>Individuals and the community who undertake practises which are detrimental to the environment or who wish to foster and enhance the environment are influencing factors.</p> <p>In addition, the community who benefit from the active control of animal and plant pests and the protection of our unique ecosystems.</p> | <p>The provision of biodiversity and biosecurity activities is considered a public good. However, there can be a private element of benefit, with plant and animal pest monitoring and inspection. Therefore, such monitoring and inspection costs will be funded equally from a mix of the Crown contribution, allocated general funds and landowner contributions. All other operating activities to be funded from the Crown contribution.</p> <p>Capital and operating costs are funded from a mix of Crown contribution and allocated general funds.</p> <p>Funding sources: Grant and other income directly associated with the activity: 100% General funds 15.8% Annual Crown contribution: adjusted to balance activity funding differences</p> |
| Resource management: | | | |
| <p>Resilient community We monitor and investigate the state of our environment and identify trends, risks, and pressures our environment</p> | The community benefits from the environmental protection that comes from our activities that | Need is created by applicants seeking consent under the | Planning, consenting and compliance monitoring is required as a result of the actions or inactions of individuals. Compliance provides an indirect benefit to the public. The allocation of costs to those who cause such costs, through fees and |

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|--|---|---------------------------------------|--|
| <p>faces. Particularly in relation to land, soils and water. We use this information to make better decisions in our planning. We work to educate people and provide information to enable more sustainable and resilient living.</p> <p>Embracing diversity Our planning framework ensures that identified sites of important sites to imi and iwi, are considered when planning decisions are made. We work with landowners to enhance biodiversity, helping to protect our natural heritage values.</p> <p>Building growth Effective resource planning processes help ensure appropriate and efficient infrastructure and resources are available to meet the demands of our communities, both now and for future generations. Compliance monitoring can ensure fair and equal opportunities for all. We actively encourage people to adopt best practice in relation to their use of land and water resources.</p> <p>Sustainable action We develop policies and plans that promote sustainable management of our natural and physical resources and minimise the impact of climate change on our environment. We monitor and regulate activities that could, over time, put pressure on our environment and resources, and take preventative action through education and enforcement.</p> | <p>follow the Resource Management Act 1991.</p> <p>Benefits accrue both in the immediate and long-term.</p> | <p>Resource Management Act 1991.</p> | <p>charges, ensures our environment is maintained in accordance with consent conditions, encouraging sustainable use of resources.</p> <p>Other capital and operating costs are funded from a mix of fees and charges, Crown contribution and allocated general funds.</p> <p>Funding sources: as above plus user charges 100%</p> |

| Community outcomes activity contributes and impact on well-beings | Distribution and period of benefits | External factors influencing activity | Rationale of the costs and benefits of distinct funding for the activity |
|---|--|--|--|
| Licensing and building: | | | |
| <p>Resilient community We respond and enforce alcohol sale and consumption, and control dogs and stock, so as not to adversely affect our community's quality of life.</p> <p>Embracing diversity Areas of cultural significance are managed and protected through our regulatory practices.</p> <p>Building growth Our regulatory practices are managed in a manner that contributes to the economic well-being in our community.</p> <p>Sustainable action We have a dog and stock officer, who assists with educating owners on appropriate housing of animals, limiting negative effects on native fauna.</p> | <p>Consent holders benefit directly from gaining compliance and holding a consent.</p> <p>All benefits accrue immediately once the consent is issued.</p> <p>Although, there are future benefits throughout the life of the consent.</p> | <p>Need is created by applicants seeking consent under the Building Act 2004 or Sale and supply of Alcohol Act 2012.</p> | <p>Consent and licensing applications are considered a largely private good; therefore, the associated processing costs are to be fully funded by the applicant.</p> <p>Capital and operating costs are funded from a mix of Crown contribution and allocated general funds.</p> <p>Funding sources: as above plus user charges 100%</p> |

Council is required to make adequate provision in the Long-Term Plan to meet our identified expenditure needs. Council believes the outlined approach to funding and the consequential impacts on our operating budgets, debt and levels of service is prudent, reasonable, and appropriate having had regard to our funding principles, legislation and other relevant matters, including achieving a balanced budget.

Rating Policy

What's changed to the policy in the last Long-Term Plan?

No significant updates or changes have been made to that in the last Long-Term Plan.

This policy should be read in conjunction with the Council's Revenue and Financing Policy.

General rates

Council uses capital value to set and assess rates. Capital value is defined as the market value of land, plus the improvements as per the valuation roll.

Council considers general rates are an appropriate basis for funding activities where it is not practicable or cost-effective to identify the individual or group of beneficiaries of the service and charge them for the benefits received or costs imposed. The rationale being that those with more capital are better able to bear the costs. Furthermore, those with more capital are likely to consume more resources and have a greater interest vested in the management of those resources.

Council will set general rates differentially, based on the use to which the land on each rating unit is put. Given the size of the Council and the distribution of wealth, this is considered the most equitable approach to fairly distributing rates within our community.

Council has defined the differential factors below:

| General rate category | Description |
|-----------------------|--|
| Infrastructure | Land where the primary use is for public utilities, including telecommunications, drinking water, wastewater and energy industries. |
| Industrial | Land where the primary use is for manufacturing or distributing goods, as defined in our Resource Management Document. |
| Commercial | Land where the primary use is for retail or wholesale sale of goods or services. |
| Rural & Residential | Land where the current or intended use includes, but is not limited to, housing (single and multiple dwellings) or rural land resources, which facilitate farming, forestry, quarrying and areas of significant natural, spiritual and cultural value. |

General rates will be fully assigned to the community development and emergency management group of activities. The rationale being that funds raised on the island, by way of general rates should be attributed towards the community and focus on enhancing local services, amenities and initiatives for our residents. Council considers this an appropriate model for the allocation of rates.

Targeted rates

Council will apply a targeted rate to those properties which use the service provided. This includes: roading, drinking water, wastewater and waste management services provided by the Council.

Rates based on location

The Council deems the Islands as one location, for reasons of rating efficiency and due to the size of the Council, will not apply different rating amounts based on the location of a rating unit.

Separately used and inhabited parts

Council has elected to rate all fixed rates based on the separately used or inhabited parts of a rating unit.

Divisions

A division is the separation of a property record in the District Valuation Roll (DVR) into two or more parts in the Rating Information Database (RID). The purpose of a division is to charge the correct rates liability according to the property's use.

Council has elected to not undertake the division of properties, where there are two or more uses (being the rating categories, or as non-rateable or 50% non-rateable properties). The size of the Council and the additional administrative burden required to collect the additional revenue, means division of properties is not efficient. Rates shall be calculated on a property's primary use.

Where there are contiguous rating units, owned by the same ratepayer, the ratepayer may apply for a remission on additional uniform solid waste and roading charges, applied on a per rating unit basis. Decisions on approving remissions are delegated to the Operations Manager.

Rates payable by instalments

Council provides for rates to be paid in four equal instalments. A ratepayer may elect to pay weekly, fortnightly, monthly by automatic payment through the banking system or by direct debit (weekly fortnightly or monthly). Council also accepts over the counter payments.

Any payments received for rates are applied to the oldest debt first.

Minimum economic rate

Council will not collect the rates payable on a rating unit if the sum of those rates is so small as to be uneconomic to collect. Council has determined that it is uneconomic to collect rates owing on any rating unit of less than \$20.00 (including GST) per annum.

Rates penalties

Council applies the following penalties:

- a. A 10% penalty is added on the next day to any balance of any instalment not paid by the due date.
- b. A 10% penalty will be added to any balance that remains unpaid from previous years. This will be added on 6 July of each year, or five working days after Council has passed the rates resolution (whichever is the later).

Three-yearly property re-valuations

Council has chosen to reassess rateable values of properties every three years, the maximum timeframe allowed by the Rating Valuations Act 1998. The next re-valuation is as of 1 September 2024, to be applied to the 2025/26 rating year.

The re-valuation may affect the amounts assessed against individual rating units within each differential rating category relative to other rating units.

Public availability of information

The Rating Information Database is available on the Council website and the Council office. Council may charge a fee for supplying any person with a copy of this information.

Objections and disputes

The Local Government (Rating) Act 2002 provides for the right of objection to Council's implementation of their rating policies. Any objections to the allocation of property use to the council differential rating categories needs to be in writing to the Operations Manager for considerati

Rates Remission and Postponement Policy

What's changed to the policy in the last Long-Term Plan?

The revenue and financing policy has been updated to give consideration to the Local Government (Rating of Whenua Māori) Amendment Act 2021 and the Te Ture Whenua Māori Act 1993.

Council has removed remissions for late payments and postponement of rates due to financial hardship, electing for approval to be at the discretion of the Operations Manager.

A rate remission allows Council, at its discretion and where relevant qualifying criteria are met, to modify the rates liability on applicable rating units in order to ensure an appropriate rate liability.

Postponements allow for the delay in payment of rates in certain circumstances.

Specific areas where rates exemptions or postponements apply include:

- Moriori and Māori freehold land
- Not-for profit community organisations
- Property affected by natural calamity or disaster.

Rmissions policy guidelines - general

All rates remissions are deducted from the rates assessment when the rates are assessed at the start of each rating year.

All applications (except for penalty remissions) must be received one month prior to the rates being assessed. Remissions received after this date will be applied to the following financial year. Rates remissions are not made retrospectively.

Moriori and Māori freehold land remission and postponement policy

Some Moriori or Māori freehold land on the Chatham & Pitt Islands is unoccupied and unproductive. This land creates a significant rating burden on the Moriori or Māori owners who often do not have the ability or desire to make economic use of the land. Often this is due to the nature of the ownership, or it is isolated and marginal in quality.

The objective of this policy is to remove or reduce any financial burden on Moriori and Māori-owned lands (or portion of lands) that have no occupier, or no economic or financial benefit derived from the land, granting a remission for the portion of land unoccupied and unproductive. This approach may encourage owners or trustees to use or develop the land.

Moriori and Māori freehold land is defined as land where beneficial ownership has been determined by an order issued by the Māori Land Court, irrespective of whether the owners identify as tchakat henu Moriori or Māori. Only land that is the subject of such an order, or any other matters referred to in schedule 11 of the Local Government Act 2002 (Matters relating to rates relief on Māori freehold land) may qualify for a remission or postponement of rates under this policy.

Whether rates are remitted or postponed in any individual case will depend on the individual circumstances of each application.

Conditions and criteria

The land must either be Moriori or Māori freehold land (as defined in the Local Government (Rating) Act 2002) or the land is general land that ceased to be Māori land under Part 1 of the Māori Affairs Amendment Act 1967 which does not produce any income.

The land or portion of the land must not be “used”. This includes leasing the land, residing on the land, maintaining livestock on the land, growing exotic forest for future harvesting, using the land for storage or in any other way. Land that is maintained to reduce fire risk, or land that is unfenced and grazed by wandering stock for no income by the owners is not “used”.

To encourage the development of the land, the rating unit may be apportioned into used and non-used portions and the rates will be remitted on the percentage of non-used land.

Any occupied dwellings, or activities using the land for commercial or agricultural purposes, will be rated the general and targeted rates per separately used or inhabited parts of a rating unit.

To be considered for rates remission under this policy, the owner or ratepayer must provide:

- Details of the property, including documentation that proves the land, which is the subject of the application, is Moriori or Māori freehold land and
- An explanation on how the relevant criteria and conditions are satisfied, including the objectives that will be achieved by providing a remission or postponement; and
- Complete any other relevant statutory declarations as may be required by Council.

However, if the owners of an unoccupied block cannot be found, the Council may apply a remission without the need for a request. If the circumstances of a ratepayer who has been granted a remission under this policy changes, the ratepayer must inform Council within 30-days. The change in circumstances may mean that the rating unit or part of the rating

unit, are no longer eligible for a remission under this policy in future rating years.

All land that is approved for remission under this policy, will be reviewed on a yearly basis to decide if the remission is still relevant for the following rating year.

The Council has a discretion to apply a remission or postponement on rates either fully or partially, based on the following criteria:

- The land is fully or partially unoccupied and no income is derived from the use or occupation of the land; or
- The land is inaccessible and is unoccupied; or
- The land is better set aside for non-use (whenua rāhui) because of its natural features, or
- The property carries a best potential use value that exceeds the economic value arising from its actual use.

Not-for-profit community organisations

Council extends the status of non-rateable properties to not-for-profit community organisations, the objective to provide additional support to these organisations and reduce financial commitments. These organisations must deliver social benefits to the community where neither government nor business is best or appropriately placed to do so.

Where a property is used for multiple purposes, the primary use of the property will be used to determine its use (no rating unit division will be undertaken).

The policy is that these rating units will have all general rates remitted.

Conditions and criteria

A qualifying not-for profit community organisation is defined as:

- The organisation must be either a registered Charitable Trust or an IRD approved donee organisation.

- The organisation and anyone using the organisations property must not be operating any activity for private profit.
- The organisation must deliver social benefits as a substantial part of its activities.
- The organisation must complete and provide all information requested on the application form and respond to any further enquiry for information to support the application.

An annual declaration form is required to be completed confirming that the organisation still occupies the property and meets the purpose of this policy. This form can be obtained from the Council's office.

Decisions on remission for not-for-profit organisations are delegated to the Operations Manager.

Rates set and assessed on rateable units for schools can apply for a remission of wastewater charges, subject to approval from the Operations Manager.

Property affected by natural calamity or disaster

The objective of this policy is to for rate relief to be provided to assist ratepayers experiencing extreme financial hardship due to a calamity or natural disaster that affects their ability to pay rates.

Conditions and criteria

Remissions approved under this policy do not set a precedent and will be applied only for each specific event and only to properties affected by the event.

Council may remit all or part of any rate on any rating unit where the application meets the following criteria:

- Where erosion, subsidence, submersion or other natural calamity or disaster has affected the use or occupation of any rating unit.
- It is applicable for each single event and does not apply to erosion, subsidence or other incidences that may have occurred without a recognised major natural calamity or disaster.
- Council can set additional criteria for each event where it considers it to be fair and reasonable to do so. This is because the criteria may change depending on the nature and severity of the event and available funding at the time. Council may require financial or other records to be provided as part of the remission approval process.
- The extent of any remission shall be determined by Council on a case-by-case basis.

Decisions on remission of Property affected by Natural Calamity or Disaster are delegated to the Operations Manager.

Any other remissions related to the removal of late payment penalties or other rate postponement due to financial hardship are delegated to the Operations Manager to approve at their discretion.

Council funding impact statement and rating information

What's changed to the policy in the last Long-Term Plan?

Targeted rates have been updated to remove the targeted fish rate, which is no longer applied.

Reference to loans expected to be repaid through targeted rates, have been removed either due to the scheme ceasing (warm home loans) or no longer expected to progress due to alternate funding arrangements being secured (water tank loans).

The Council is considering varying the water targeted rate from being fully funded by way of a connection charge to being split between a connection charge and a usage charge, based on the amount per unit of water (cubic metre) consumed or supplied as measured or controlled by a meter.

The funding impact statement consists of two parts:

- Rating information for 2024/25,
- Rating samples for 2024/25

The funding impact statement should be read in conjunction with our Revenue and Financing Policy and Rating Policy.

Rating information for 2024/25

Council sets and assess the following rates under the Local Government (Rating) Act 2002:

- General rates
- Targeted rates, including:
 - Service use – roading
 - Service use – drinking water
 - Service use – wastewater
 - Service use – solid waste

Details of the rates revenue to be collected and the rating categories that will pay these rates are detailed in this funding impact statement.

General rates

A general rate is set and assessed on the capital value of all rateable land on the islands.

General rates are set on a differential basis on the category of land identified below. The differential basis is driven by the primary use of the land.

The objective of including differentials in the general rate is to achieve a fair distribution of the general rate, ensuring our rates are affordable among other considerations by Council.

This funding mechanism is used to fund all the services we provide.

The general rate is set and assessed on a differential basis as follows for 2024/25:

| Source | Differential categories | Percentage of total general rates | Rate in the dollar of capital value | Rates revenue |
|--------------|-----------------------------|-----------------------------------|-------------------------------------|------------------|
| General rate | Infrastructure | 5.0% | 0.00348234 | \$21,932 |
| | Industrial | 14.5% | 0.00719888 | \$63,602 |
| | Commercial | 11.0% | 0.00293686 | \$48,250 |
| | Rural & Residential | 69.5% | 0.00196193 | \$304,851 |
| | Total revenue sought | | | \$438,634 |

All quoted figures include GST

For the purposes of classification, the differential categories are defined in our rating policy.

Council does not require a uniform annual general charge (UAGC) to be set on any property, due to the minimal number of rateable units in the area and therefore no revenue is sought from this funding category.

Targeted rates

Targeted rates are applied to the properties which use the service provided. Council applies the waste management targeted rate on a differential basis, separating between rural and residential ratepayers and other ratepayers. With this exception, no other targeted rates are set on a differential basis.

Targeted rates are set based on a rating unit basis for funding roading and waste management (including fish waste discharge) activities and connections for drinking water supply activities and pans for wastewater activities will be used.

Lump sum contributions in respect of targeted rates will not be sought.

The targeted rates are set and assessed as follows for 2024/25:

| Source | Activity for setting a targeted rate | Category for setting targeted rate | Calculation factor | | Rates revenue |
|---------------|--------------------------------------|---|--------------------|-----------------------------|---------------|
| Targeted rate | Roading | The provision or availability of a roading service. | \$284.99 | Fixed amount per unit | \$152,470 |
| | Potable water supply | The provision or availability of a public water supply service. | \$924.90 | Fixed amount per connection | \$110,063 |

| | | | | | |
|--|-----------------------------|--|----------|--|------------------|
| | Wastewater | The provision or availability of a sewage disposal service. | \$961.40 | Fixed amount per pan | \$124,982 |
| | Waste management | The provision or availability of a waste management service. | \$297.70 | Fixed amount per rural or residential unit | \$93,776 |
| | | | \$374.80 | Fixed amount per Infrastructure, Industrial or Commercial unit | \$19,864 |
| | Total revenue sought | | | | \$501,155 |

All quoted figures include GST

Water tank scheme

Council have obtained a grant for the purchase and installation of water tanks on resident properties who meet certain criteria, increasing our resilience. However, Council acknowledges that not all residents who wanted a water tank were able to have one installed. To respond to the demand, upon completion of the initial water tank instalment project, Council plans to investigate the provision of a low interest loan to ratepayers who install approved water tanks, which aims to reduce the demand on Council's potable water supply. The project would only be viable, if Council could successfully secure a loan to support the project.

Based on similar historic projects, a loan to a ratepayer would be repaid over 10 years through a targeted rate on the property and the loan would be registered on each property's Land Information Memorandum. The costs of supplying the water tanks to the community are expected to be offset by way of the targeted rate loan.

The water tank scheme is in the early stages and therefore no firm agreements relating to the costs or funding of the project have been settled, including the expected level of support required from central government to enable the scheme to proceed.

Whilst the level of ratepayer participation is unclear, there is high public support for this programme, and it is expected the project will address some water supply issues. Council is planning on sourcing the funds through a loan from an external entity, with additional support to secure the borrowing potentially being required from central government. As yet, there is no set date for the commencement of the water tank loan scheme and therefore, the project has not been recognised in the budget, it is expected the project will be completed subsequent to the current water tank project, which will incorporate any learnings from the project.

Future rate increases

Council is committed to keeping rates affordable while ensuring rates (including council dues contributions) are comparable with similar councils of a small or isolated nature. We therefore propose to increase rates in a consistent inflationary adjustment to align with expected expenditure movements, unless Council

determines a different adjustment is necessary to reflect movements with other comparable Councils. Council expects any annual increase will not exceed 15%. The total annual increase for each year is estimated as:

| Year | Increase | Year | Increase |
|---------|----------|---------|----------|
| 2024/25 | 6.65% | 2030/31 | 6.05% |
| 2025/26 | 6.35% | 2031/32 | 6.05% |
| 2026/27 | 6.35% | 2032/33 | 6.05% |
| 2027/28 | 6.25% | 2033/34 | 5.95% |
| 2028/29 | 6.15% | 2034/35 | 6.05% |
| 2029/30 | 6.15% | | |

Rates instalment and penalty dates

The following instalment and penalty dates apply for the 2024/25 set rates:

| Instalment | Due date | Penalty date |
|------------|-------------------|-------------------|
| 1 | 14 September 2024 | 15 September 2024 |
| 2 | 14 November 2024 | 15 November 2024 |
| 3 | 14 February 2025 | 15 February 2025 |
| 4 | 14 May 2025 | 15 May 2025 |

A penalty of 10% is added to each instalment or part thereof that is unpaid after the last date for payment. Previous year's rates that remain unpaid will have a further 10% penalty added on 6 July.

Rating base

For the 2024/25 financial year, it is projected Council will have 680 rating units within the region. Council assumes minimal growth and expects the number of rating units to remain stable over the ten-year period.

The total capital value estimated for 2024/25 is \$218,205,100.

Projections are based on the latest QV valuation data as disclosed in the 2022/23 Annual Report.

Inspection of the rating information database

In accordance with the Local Government (Rating) Act 2002, the District Valuation Roll and Rates Records are available for public inspection at the Council Offices, 9 Tuku Road, Waitangi, Chatham Islands, between the hours of 8:30am and 4:30pm on all business days of the week.

Rating samples table for 2024/25

The table below provides examples of the financial impact of rates on ratepayers in 2024/25 compared with 2023/24.

| | Sample property | District Capital Value of property | General rate | Targeted rate | Total rates | Dollar movement between years |
|---------|-------------------|------------------------------------|--------------|---------------|-------------|-------------------------------|
| 2024/25 | Infrastructure | \$1,470,000 | \$5,119.03 | \$659.79 | \$5,778.82 | \$360.33 |
| | Industrial | \$220,000 | \$1,583.75 | \$2,546.09 | \$4,129.84 | \$257.52 |
| | Commercial | \$140,000 | \$411.16 | \$659.79 | \$1,070.95 | \$66.78 |
| | Rural Residential | \$385,000 | \$755.34 | \$2,468.99 | \$3,224.33 | \$201.04 |
| 2023/24 | Infrastructure | \$1,470,000 | \$4,799.84 | \$618.65 | \$5,418.49 | |
| | Industrial | \$220,000 | \$1,485.00 | \$2,387.32 | \$3,872.32 | |
| | Commercial | \$140,000 | \$385.52 | \$618.65 | \$1,004.17 | |
| | Rural Residential | \$385,000 | \$708.25 | \$2,315.04 | \$3,023.29 | |

Liability and Investment Management Policy

What's changed to the policy in the last Long-Term Plan?

Borrowing limits have been changed, to restrict Council from entering any borrowing arrangements unless repayment funding is secured, previously the limits were based on ratios set as part of the Local Government Funding Agency.

Council has updated the investment policy to transfer excess funds at year end to an investment fund, with the aim of increasing Council's financial resilience.

Liability management

Council's liabilities comprise borrowings and various other liabilities. Council borrows in order to:

- Raise debt to fund specific new or improvements to capital projects
- Raise finance leases for fixed asset purchases
- Fund assets whose useful lives extend over several generations of ratepayers.

Borrowing limits

Council does not have the financial capacity to enter into long term debt borrowing arrangements. Therefore, the Council's long-term borrowing limits are set at 0%, unless there is a funding arrangement in place to support the repayment arrangements

Note: borrowing limits relate to long term debt, which is defined as borrowing commitments of more than one year, it excludes short term overdraft facilities, which may occasionally be utilised to assist with short-term cashflow requirements.

Borrowing mechanisms

Council is responsible for the approval of any new borrowing. In approving new debt, council will consider the impact on its borrowing limits as well as the economic life of the asset that is being funded and its overall consistency with Council's Long-Term Plan.

Council can borrow through a variety of market mechanisms, although the preferred method is to directly borrow from ANZ, to retain our on-island

banking service (ensuring continuation of our banking services, refer to our investment policy).

When evaluating new borrowing in relation to source, term, size and pricing of debt, Council must ensure any terms result in:

- Effective debt management
- The cost of borrowing being affordable to the Council ratepayers
- A prudent level of borrowings, in line with Council's borrowing limits

Borrowing to meet operating costs is not considered financially prudent. The exception to this would be the use of overdraft facilities or other short-term facilities to cover temporary fluctuations in cash flow. Any new debt agreement entered must be approved by the Council.

Security

Council's external borrowings and interest rate risk management instruments will generally be secured by way of a charge over its Council dues and/or rates and rates revenue offered through a deed of charge, debenture or debenture trust deed. Under a deed of charge, debenture or debenture trust deed, Council's borrowing is secured by a floating charge over all Council dues acquired under the Chatham Islands Act 1995 or for council rates, levied under the Local Government (Rating) Act 2002. The security offered by council ranks equally with other lenders.

From time to time, and with Council approval, security may be offered by mortgage over the property being purchased or upgraded.

Debt repayment

The funds from all asset sales and operating surpluses will be applied to the reduction of debt and/or a reduction in borrowing requirements, unless Council specifically directs that the funds will be put to another use.

Debt will be repaid as it falls due in accordance with the applicable loan agreement. Subject to the debt limits, a loan may be rolled over or renegotiated as and when appropriate.

Loans and contingent liabilities

Loans and advances can be made to community organisations/individuals to facilitate the ongoing provision of community services or recreational opportunities. These are usually at a lower than commercial interest rate.

Council sets the criteria for applications for any other loans or advances as they are granted. Council as a rule is not a lender of money. Council must be satisfied that the potential for capital loss is minimal by applying the following:

- Where possible, securing a charge over collateral security realisable on default
- Ensuring the organisation/ratepayer is financially stable and the ongoing cashflow is sufficient to service the loan.

Council may act as guarantor to financial institutions or individuals on loans or enter into incidental arrangements for organisations, clubs or trusts, when the purposes of the loan are in line with Council's strategic objectives.

Investment policy

Council generally holds investments for strategic reasons, including retaining a local banking facility on-island or where there is some other community, social, physical or economic benefit accruing from the investment activity. Generating a commercial return on strategic investments is considered a secondary objective.

Whilst acknowledging the financial constraints Council operates under, it is desirable to build financial resilience by directed excess funds into an investment account. Therefore, in years where the operating cash balance

exceeds \$200 thousand, any unearmarked funds should be transferred to an investment account. The purpose of this investment account is to assist with enhancing Council's capability to be more financially resilient.

Council recognises that as a responsible public authority, all investments held should be low risk. Council also recognises that low risk investments generally mean lower returns.

In its financial investment activity, only approved creditworthy counterparties are acceptable. Council's primary objective when investing is to ensure the continuance of a trading bank on the Islands and therefore, surplus funds will be utilised to repay borrowings and any surplus cash will be invested with the ANZ Bank or other on-island agencies at the best available negotiated rate. Investments held with ANZ bank will mature in less than three months and are held for working capital purposes.

Council will act effectively and appropriately to:

- Protect council's investments by only transacting with counterparties and instruments that are detailed in this policy to ensure investments are risk averse and secure
- Ensure investments benefit council's ratepayers
- Maintain a prudent level of liquidity and flexibility to meet both planned and unforeseen cash requirements.

Acquisition of new investments

With the exception of approved financial investments, new investments are acquired if an opportunity arises and approval is given by the appropriate Council committee, based on advice and recommendations from Council officers. Before approving any new investments, Council must give due consideration to the contribution the investment will make in fulfilling Council's strategic objectives, and the financial risks of owning the investment. The authority to acquire financial investments is delegated to the Chief Executive.

Disposal of investments

Council may elect to dispose of investments or other financial assets that no longer meet our investment objectives. Proceeds from the sale of these investments will be utilised to repay borrowings in the first instance.

Investment mix

Council may maintain investments in the following assets from time to time:

- Equity investments, including investments held in Council controlled organisations and other shareholdings
- Property investments incorporating land, buildings, a portfolio of ground leases and land held for development
- Forestry investments
- Financial investments
- Other investments approved by Council.

Financial investments

Council's investment portfolio will be arranged to provide sufficient funds for planned expenditures and allow for the payment of obligations as they fall due.

Council prudently manages liquid financial investments as follows:

- Any liquid investments must be restricted to a term of no more than 91 days and must be with an approved counterparty
- Interest income from financial investments is credited to general funds, except for income from investments for other funds where interest may be credited to the fund.

Monitoring and reporting

Investments and associated risks are monitored and managed, and regularly reported to Council by the chief executive, who is also responsible for recommending investment strategies to the Council. Council will receive a quarterly statement of investment balances and interest rates, and income received compared to budget.

Risk management

The definition and recognition of interest rate, liquidity, funding, investment, counterparty credit, market, operational and legal risk of council as detailed below applies to both the Liability Management Policy and Investment Policy.

Credit risk exposure

Dealing in interest rate products must be limited to financial instruments approved by Council. For cash management, investments and borrowing, approved instruments include: bank overdraft, cash advance (for short term and long-term loan facilities), call deposits, short-term bank deposits and borrowing through the Local Government Funding Agency.

Any other financial instrument must be specifically approved by Council on a case by case basis, and only be applied to the one single transaction being approved.

There is no minimum credit rating requirements imposed by the Council on its lenders, nor is there any limit on the level of borrowing to which the Council may commit from any one lender.

Liquidity risk management

Liquidity risk management focuses on the ability to access committed funding at a future time to fund gaps. Funding risk management centres on the ability to refinance or raise new debt at a future time at the same or more favourable pricing (fees and borrowing margins) and maturity terms of existing loans and facilities. The Council minimises its liquidity risk by timing expenditure payments to match expected cash inflows from its revenue sources or investments maturing, where there is an expected cash shortfall, Council will utilise an overdraft facility to manage the cashflow difference.

Interest rate risk management

Interest rate risk is the risk that funding costs or investment returns (due to adverse movements in market interest rates) will materially exceed or fall short of projections included in the Long-Term Plan or Annual Plan, so as to adversely impact revenue projections, cost control, and capital investment decisions/returns and feasibilities.

The primary objective of interest rate risk management is to reduce uncertainty relating to interest rate movements by fixing investment returns or funding costs. Certainty around funding costs is to be achieved through proactive management of underlying interest rate exposures.

To manage debt and borrowings, a fixed interest rate is preferred. However, floating rate debt may be spread over any maturity out to 12 months. Bank advances may be for a maximum term of 12 months

Council manages short term cash investment risk ensuring availability and access to financial investments held. In order to manage short-term cash

risk, financial investments are required to have a term to maturity of less than 91 days.

Foreign currency, forward rate agreements, future markets and options are not normally used, except with specific approval by the Council. Interest rate swaps are not to be used.

Development or Financial Contributions Policy

What's changed to the policy in the last Long-Term Plan?

No significant updates or changes have been made to that in the last Long-Term Plan.

Council does not expect to have any capital expenditure in this Long-Term Plan that will be funded by development contributions or financial contributions.

Council does have the power to collect financial contributions as per the Chatham Islands Resource Management Document, specifically a financial contribution, in the form of money, land, or any combination thereof, may be required as a condition of any resource consent granted.

A financial contribution shall be received for the purposes of:

- Restoring, at the same location or near any natural or physical resources which suffer damage or loss because of an activity; or
- Ensuring that there are positive effects on the environment, at the same or any other location in the region, to offset any adverse effects of an activity on natural or physical resources.

The financial contribution shall be determined as follows:

- Where the environment can be restored, the financial contribution shall be limited to the costs of measures of restoration undertaken or expected to be undertaken
- Where the environment cannot be restored, the financial contribution shall be limited to an amount calculated by the consent authority as if the environment could be restored to a pre-activity state. In this situation, the contribution shall be used for the purpose of environmental enhancement or maintenance on the Chatham Islands

A financial contribution shall not exceed the construction cost of the project for which the resource consent is granted.

Significance and Engagement Policy

What's changed to the policy in the last Long-Term Plan?

No significant changes have been made to the last Long-Term Plan.

Decisions made by Council affect the residents and ratepayers of the Chatham Islands. Therefore, for every decision Council makes, we need to determine how important, or significant, it is to our community. We consider several factors, including who is affected by or interested in the decision, how the decision may impact levels of service, and what the costs will be.

These factors help us to work out how to engage with our community, i.e., whether to involve the community in making the decision, ask for community feedback on the decision, or simply tell the community what is happening. The way we engage is often set by legislation, and there are many steps to follow. This policy guides how we determine the significance of a decision and how we engage the community based on that level of significance.

The objectives of this policy are to:

- Establish a general approach and process when making decisions, to ensure consistency when determining significance;
- Identify the extent and type of public engagement required before a decision is made;
- Build positive relationships with stakeholders and the wider community – including Moriori and Māori, encouraging co-operation, respect and mutual understanding of other points of view.

Determining significance

| Criteria | Threshold | Considerations |
|--------------------------------------|---|--|
| Financial impacts | Incurs net debt as a percentage of equity of more than 10%. | The financial cost of the decision, in the short term, medium term and long term The extent of the impact on debt The impacts on Council's capacity/ capability to meet legislative requirements |
| Level of public interest | Generates considerable interest or community views are extremely divided | The potential for the issue to generate interest or controversy The extent to which community opinion is divided on the matter |
| Effect on the ratepayers | Ratepayers have a notable change in the value of rates set against properties | The extent of the financial impact on rates |
| Effect on individuals or communities | Specific demographics are drastically impacted. | The proportion of individuals or groups within the community that are affected and the extent they are impacted The level of impact on our community outcomes and strategic priorities |
| Levels of Service | The change in level of service will be major and long-term. | The long-term social, economic, environmental and cultural impacts of the proposal/decision on the needs of current and future generations The opportunity costs, assessed level of risk and ability to reverse any effects of the decision |

Significance will be determined in the early stages of a proposal before decision making occurs. If it becomes necessary to do so, the significance of a proposal may be re-assessed.

In determining a proposal's degree of significance, Council will be guided by:

- Historic levels of community impact or interest in the proposal
- How much a decision or action promotes community outcomes or other Council priorities
- The likely impact on Mori and Māori and their culture and traditions with their ancestral land, water, valued flora and fauna; and
- Whether the decision is consistent with previous Council decisions
- The extent and degree to which consequences of a decision are irreversible.

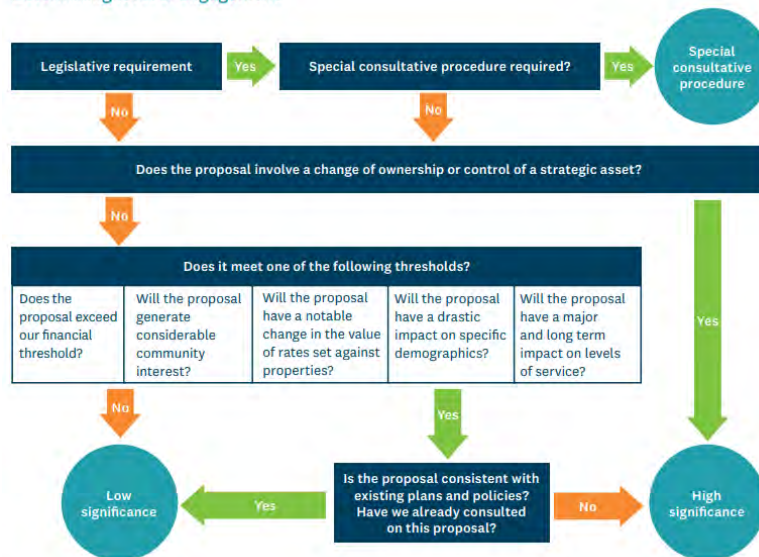
Matters of significance

A decision will be considered significant by Council if one of the following applies:

- It involves the transfer of the ownership or control of a strategic asset to or from Council; or
- It is a legislative requirement
- It is inconsistent with Council's plans or policies that have been previously consulted on and meets one of the following thresholds:

The higher the level of impact assessed as part of the considerations, the higher the need for greater engagement within our community.

Determining level of engagement



Strategic assets

Strategic assets are defined as ‘an asset or group of assets that the local authority needs to retain to maintain its capacity to achieve or promote any outcome that it determines to be important to the current or future wellbeing of the community’.

Council considers the following to be strategic assets:

- Our infrastructural assets, including: the roading network, the drinking water supply network, the wastewater network, our landfills and transfer stations
- Our open space network, including parks, walkways and sports fields
- Our community buildings and housing and
- Kaingaroa and Owenga wharfs and our inner harbours

Once the level of significance has been assessed, the corresponding level of engagement will be used:

| Level of significance | Level of engagement |
|-----------------------|---|
| High | Collaborative: Working together with key stakeholders (such as the Department of Internal Affairs, imi and iwi) to develop understanding of all issues and interests to work out alternatives and identify preferred solutions. |
| Medium | Consultative: Two-way communications designed to obtain public feedback about ideas on rationale, alternatives and proposals to inform decision-making. |
| Low | Informative: One-way communication providing balanced and objective information to assist understanding about something that is going to happen or has happened. |

Principles for engagement

Council seeks to inform communities about decisions that affect them, provide an opportunity for meaningful community input into decisions, and promote a sense of ownership of its decisions. Council will do this by upholding the following principles:

1. We conduct our business in an open, transparent, democratically accountable manner
2. We maintain awareness of, and have regard to all community views
3. At the beginning of a decision-making process, we consider what matters are significant, and the level of engagement required.
4. We provide opportunities for Moriori and Māori to contribute to our decision-making processes.

Engaging with Moriori and Māori

When engaging with Moriori and Māori, Council will:

- Acknowledge the unique perspective of Moriori and Māori and recognise that Moriori and Māori are more than an interest group or stakeholder;
- Provide opportunities and capacity for Moriori and Māori to hui and contribute to its decision making processes;

- Ensure existing general and project-specific relationship processes between Council and Moriori and Māori will, where working well, remain as a starting point for engagement;
- Recognise and empower existing formal relationships (i.e. MOUs) with imi and iwi; and
- Fulfil our obligations under the Treaty settlement legislation and agreements.

When council may choose not to engage

There are times when Council may not consult the community including, but not limited to:

- Operational matters that do not reduce a level of service
- Emergency management activities
- Those decisions made by delegation to Council staff
- Commercially sensitive decisions (e.g. awarding contracts)
- Decisions made to manage an urgent issue
- Decisions where action is necessary, for example to comply with the law; protect life, health, or amenity and infrastructure; prevent serious damage to property or avoid, remedy, or mitigate an adverse effect on the environment.

Working in partnership with Moriori and Māori

What's changed to the policy in the last Long-Term Plan?

No significant changes have been made to the last Long-Term Plan.

The Council recognises the special position of t'chakat henu and tāngata whenua within our community and acknowledges the important role Moriori and Māori play in our decision-making processes. Council seeks to recognise the principles of Te Tiriti o Waitangi/Treaty of Waitangi within its decision-making processes.

Council is committed to take steps to strengthen the capacity of Moriori and Māori to contribute to the decision-making processes of the Council, with the following strategies:

- Establish and maintain processes to provide opportunities for Moriori and Māori to contribute to the decision-making processes of the local authority;
- Consider ways in which it may foster the development of Moriori and Māori capacity to contribute to the decision-making processes of the local authority; and
- Consult with Moriori and Māori where, in the course of the decision-making process a significant decision relates to land or a body of water, the Council must take into account the relationship of Moriori and Māori and their culture and traditions with their ancestral land, water, sites, sacred places/wāhi t'chap/wāhi tapu, valued flora and fauna, and other treasures/ miheke/taonga.

Recognition of tikane Moriori and tikanga Māori

Within the Chatham Islands territory, we acknowledge Moriori as t'chakat henu and Māori as tangata whenua, both identities representing and acknowledging the people of the land.

The Council acknowledges that differences may arise when engaging with tikane Moriori and tikanga Māori in their values, beliefs and traditions. Council will seek to resolve these differences by enabling participation that promotes:

- Greater understanding of expectations and aspirations
- Finding common outcomes
- Increased opportunities to establish shared projects and joint ventures, supporting Moriori and Māori expectations and aspirations to promote the well-being of Moriori, Māori and the wider community
- Ensuring more efficient and effective use of Council, Moriori and Māori resources,
- Improved processes based on an understanding of one another's priorities, expectations and available resources.

Council is committed to building relationships with Moriori and Māori. Effective and meaningful engagement will enable the Council to meet our responsibilities, recognise Te Tiriti o Waitangi/Treaty of Waitangi and result in more informed decision-making.

Resource management

For resource management matters, the Council is considering opportunities for imi, iwi and Council to work together under the Resource Management Act 1991. Other processes or mechanisms that will contribute to Moriori and Māori input in resource management include:

- Providing opportunities for Moriori and Māori to hui and participate in the review of Council's Resource Management Document,
- Implementing statutory provisions prescribed within Treaty Claims Settlement Acts.

The relationship between Moriori, Māori and Council's regulatory functions relating to protecting the environment requires information-sharing and appropriate dissemination. The wider relationship building process will also seek to align Moriori and Māori social and development stewardship or t'chiekitanga /kaiakiakanga outcomes so there are clearer opportunities and efficiencies when providing for well-being/mouri ora of Moriori and Māori within our islands.

Council's Significance and Engagement Policy

This policy sets out what the community, including Moriori and Māori, can expect from Council regarding consultation and ways they can influence and participate in Council's decision-making processes.

Council acknowledges the unique perspective of Moriori and Māori. When Council are considering a significant decision, it will consider the likely impact on imi and iwi.

Building capacity

Chatham Islands Council will work with Moriori, Māori and others to investigate how the Council may foster development of Moriori and Māori capacity to contribute to the decision-making processes of Chatham Islands Council.

Related to this process is the need for the Council to gain a clear understanding, through hui and ongoing relationships, of Moriori and Māori expectations and to agree and commit to practicable steps to building Moriori and Māori capacity.

Chatham Islands Council recognises the need to invest in education programmes for elected members and staff to provide for the development of Moriori and Māori values and traditions and gain an appreciation of these needs and expectations in relation to the Local Government Act 2002 and Resource Management Act 1991.

Formalised arrangements, such as memoranda of understanding and agreed consultative processes under the Local Government Act 2002, will need to be agreed upon.

Memorandum of Understanding

Memoranda of Understanding are principle-based documents that seek to build and maintain relationships and enable input into Council processes where applicable. These documents are becoming increasingly important as Council seeks closer and more meaningful working relationships with Moriori and Māori, along with striving for effective consultation and engagement on a wide range of issues affecting Moriori and Māori areas of interest, and shared projects for shared outcomes.

The Council will seek to develop a formalised Memorandum of Understanding with imi and iwi along with other strategies considered relevant to building relationships.

The Council is committed to encouraging and developing further relationships at both the governance and operational levels. The Council will also participate in co-governance models where they arise under Treaty Settlement legislation.

Statement of fees and charges 2024/25

| Activity | Fee Type | Description | 2023/24 | 2024/25 |
|---|--|---|---|---------|
| Building Consents* | Building Consents Fees | External service provider, a deposit is required based on the estimated Building Consent application charges. | Costs outlined on https://wellington.govt.nz/property-rates-and-building/building-and-resource-consents/building-consents/building-consent-fees/all-building-consent-fees | |
| Resource Consents* | Land Information Memorandums (LIM's) | | \$265 | \$275 |
| | Urgent LIM's | | \$381 | \$396 |
| | Project Information Memorandum (PIM's) | Single residential | \$455 | \$473 |
| | | All other buildings | \$546 | \$567 |
| Land Use Consents* | Notified Consent | | \$2,000 deposit | |
| | Charge out rates | Recovery of actual planner costs charged to Council | An administration fee charged at cost | |
| | Non Notified Consents | | \$544 | \$565 |
| | Controlled Activity Consents | | \$817 | \$848 |
| Subdivision Consents* | Non Notified – Boundary Adjustments | | \$696 | \$723 |
| | Non Notified – 2 lots or less | | \$788 | \$818 |
| | Non Notified – 3 to 5 lots | | \$1,816 | \$1,886 |
| | S 223 Certificate | | \$363 | \$377 |
| | S 224 Certificate | | \$363 | \$377 |
| | S 226 Certificate | | \$484 | \$503 |
| | S 139 Certificate of Compliance | | \$574 | \$596 |
| * Further costs may be charged in recovery of actual consultancy costs incurred | | | | |

| Activity | Fee Type | Description | 2023/24 | 2024/25 |
|---------------------|--|--|---|------------------|
| Liquor Licensing | Club License | To comply with the Sale and Supply of Alcohol Act 2012 | https://www.justice.govt.nz/justice-sector-policy/key-initiatives/sale-and-supply-of-alcohol/licensing/ | |
| | On Licence | | | |
| | Off Licence | | | |
| | Managers Certificate | | | |
| | Annual Fees | | | |
| | Special Licence | | | |
| Food licencing fees | New Registration | - | https://wellington.govt.nz/services/consents-and-licences/selling-food/food-safety-fees | |
| | Inspection Fee | | | |
| | Food control plan registration fee (annually) | | | |
| | National programme registration fee (biennial) | | | |
| Animal Control | Dog registration | | \$72 | \$75 |
| | Dog registration – Early | | \$46 | \$48 |
| | Replacement dog tag | To replace lost dog tag or as an administration fee for dog transfer from other Councils | \$5 | \$5 |
| | Fines under Dog Control Act 1996 | Vary per offence, (Per Sch. 1 of the Dog Control Act) | From \$100 up to \$750 | |
| | Impounding Fees | | \$122 | \$127 |
| Cemetery | Sexton Fees | | At cost plus 10% | At cost plus 10% |
| | Burial plot purchase | | \$644 | \$669 |
| | Cremation plot purchase | | \$349 | \$362 |
| Community Housing | Rentals – 3 Bedroom | Per week (effective from 1 January) | \$150 | \$156 |
| | Rentals – 2 Bedroom | Per week (effective from 1 January) | \$120 | \$125 |
| Staff Housing | Rental – 3 bedrooms | Per week (effective from 1 January) | \$188 | \$195 |

| | | | | |
|-------------------------------|--|----------|---------|---------|
| Coasts, Harbours & Navigation | Swing Mooring Fees – Registration and Transfer | Per year | \$89 | \$92 |
| | Waitangi | Per year | \$3,630 | \$3,770 |

| Activity | Fee Type | Description | 2023/24 | 2024/25 |
|-------------------------|---|----------------------------------|---------------------------------------|---------------------------------------|
| | Owenga | Per year | \$3,025 | \$3,141 |
| | Kaingaroa | Per year | \$2,418 | \$2,511 |
| | Port Hutt | Per year | \$2,418 | \$2,511 |
| | Flower Pot | Per year | \$607 | \$630 |
| | Permission of Harbourmaster – Oil Tanker | | \$122 | \$127 |
| | Application for Exemption | | \$73 | \$76 |
| | Application for Suspension | | \$303 | \$315 |
| | Application for Reservation | | \$303 | \$315 |
| | Cruise ship fee | Per visit | \$44 per passenger | \$44 per passenger |
| Administration Requests | Information Requests | Staff time | \$44 per half hour or part thereof | \$46 per half hour or part thereof |
| | Printed Council agenda | | \$5 per copy | |
| | Photocopying | With own paper | 10 cents per copy | |
| | | With CIC paper | 20 cents per copy | |
| | | With CIC coloured paper | 50 cents per copy | |
| | | With CIC card | 50 cents per copy | |
| | | Colour printing (with CIC paper) | From \$2.50 per copy | |
| | | Double sided photocopies | 30 cents per copy | |
| | Laminating | Per page | \$3 | \$3 |
| | Stationery | A4 paper per ream (white) | \$17 | \$18 |
| | | A4 paper per ream (coloured) | \$20 | \$21 |
| | | Envelopes – plain | 65 cents per envelope | |
| | | Envelopes – plain with postage | \$1.40 per envelope | |
| | | Large envelopes | \$1.70 per envelope | |
| Library | Book rentals | Per book | Free | |

Council dues

No change to Council dues. The current Special Order for the adoption of rates for Council dues was ratified by the Council to take effect from 25 November 1991.

| Carriage by sea | Quantity | 2024/25 Fee |
|---|------------------------|--------------------|
| Rock Lobster, Paua, Scallops and Oysters | Tonne | \$200 |
| Other fish meat and fish bait | Tonne | \$18 |
| Cooler goods (fruit, vege, etc.) | m ³ | \$5 |
| General Cargo | m ³ /Tonne* | \$18 |
| Diesel, Oil in bulk | 1,000 litres | \$24 |
| Petrol/Avgas in bulk tanks | 1,000 litres | \$25 |
| Petrol/Avgas in 200 litre drums | Drum | \$5 |
| Hazardous Goods | m ³ /Tonne* | \$18 |
| Small vehicles (including small trailers, motorbikes, etc.) | m ³ | \$5 |
| Large vehicles (including cars, boats, trailers, etc.) | m ³ | \$50 |
| Timber | m ³ | \$12 |
| Dry Bulk (cement, fertiliser, coal, animal feed) | m ³ /Tonne* | \$12 |
| Wool and Moss | Bale | \$12 |
| Animals, large (cattle/horses) | Each | \$5 |
| Animals, small (sheep, pigs, dogs, fowls, goats) | Each | \$1 |
| Minimum freight | | \$24.30 |
| <i>*m3/Tonne - whichever is the greatest</i> | | |
| Carriage by air | Quantity | 2024/25 Fee |
| Rock Lobster, Paua, Scallops and Oysters | Tonne | \$200 |
| Other fish meat and fish bait | Tonne | \$18 |
| General Cargo | kg | \$3.04 |
| Minimum Freight | | \$17.50 |

All quoted figures include GST



4. Works & Services

4.1 Stantec Engineering Report – March 2024

| | |
|---------------------------|---------------------|
| Date of meeting | 2 May 2024 |
| Agenda item number | 4.1 |
| Author/s | Stantec New Zealand |

Purpose

To update and inform Council about its Engineering Services contract.

Recommendations

THAT the reports be received.

Background

Members from the Stantec team will teleconference in to the meeting to give a verbal report on monthly activities.

Attachments

1. Stantec Monthly Report March 2024



CIC Engineering Services Contract: Monthly Report

Financial update – March 2024

Financial Position: Roothing

The total roading budget allocated for the 2023/24 financial year is now \$6.5M

The total Waka Kotahi subsidised programme budget is \$5.6M, of which the approved Maintenance, Operations and Renewals (MOR) budget is \$3.9M, including a small amount of carry-over from the 22/23 financial year, and the additional funding recently offered and confirmed by NZTA. \$1.7M of approved Low Cost/Low Risk (LCLR) funding has been carried over into this year.

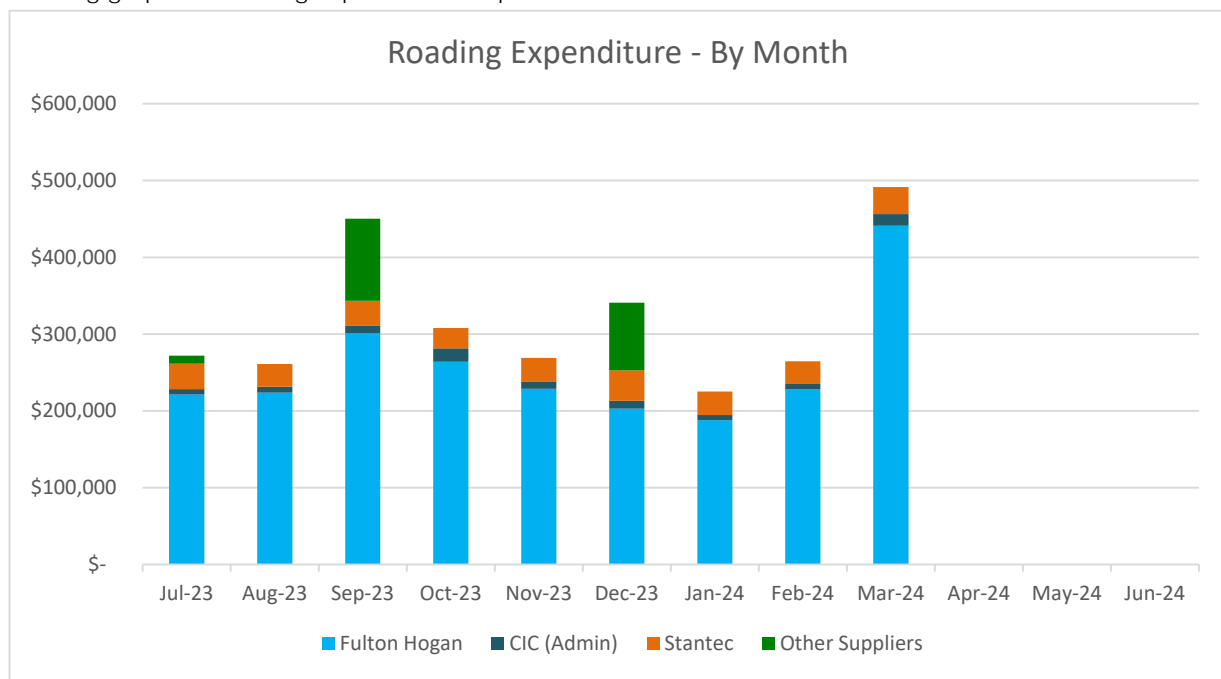
The February claim totalled \$265k.

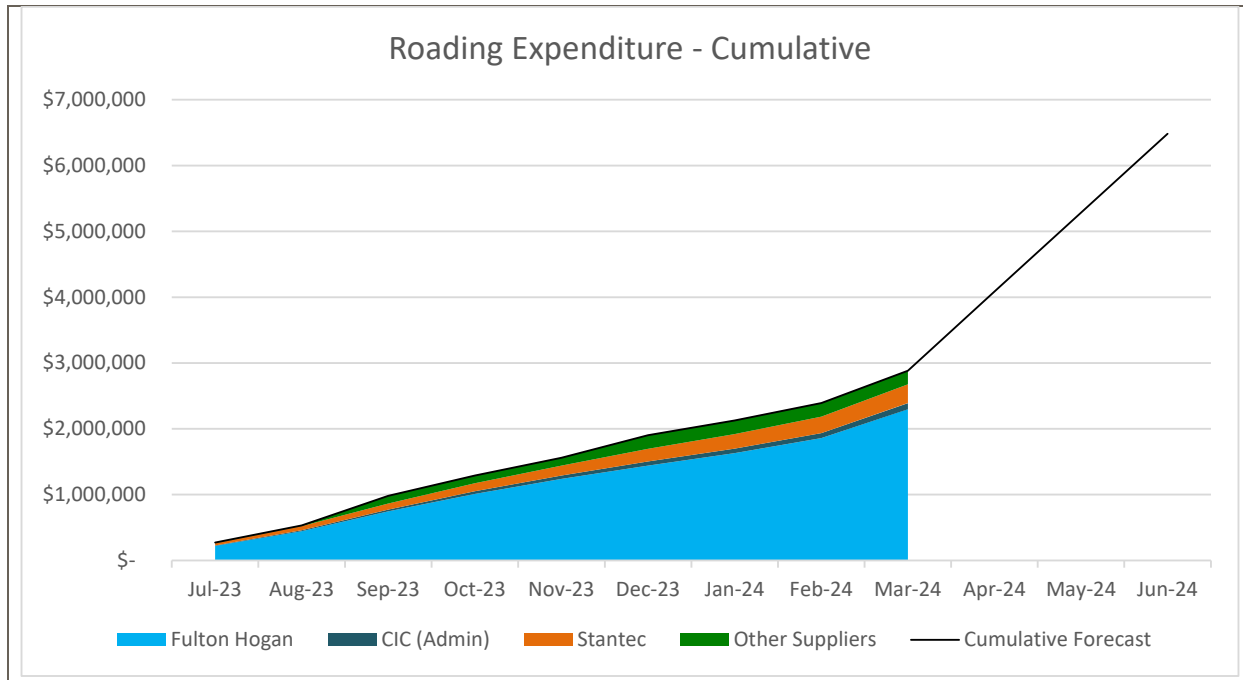
Expenditure of the Maintenance, Operations, and Renewals work programme has exhausted 64% of the approved funding for FY 23/24, and we are 75% of the way through the financial year.

The largest roading construction cost in March was for the first 500m of the pavement strengthening and additional cover on North Road. The largest engineering cost was for the development of the consent conditions and the analysis of the design constraints from earthquake and wave action for the Owenga Barge Loading Ramp.

Expenditure Tracking of Waka Kotahi Funding

Tracking graphs for roading expenditure are presented below.





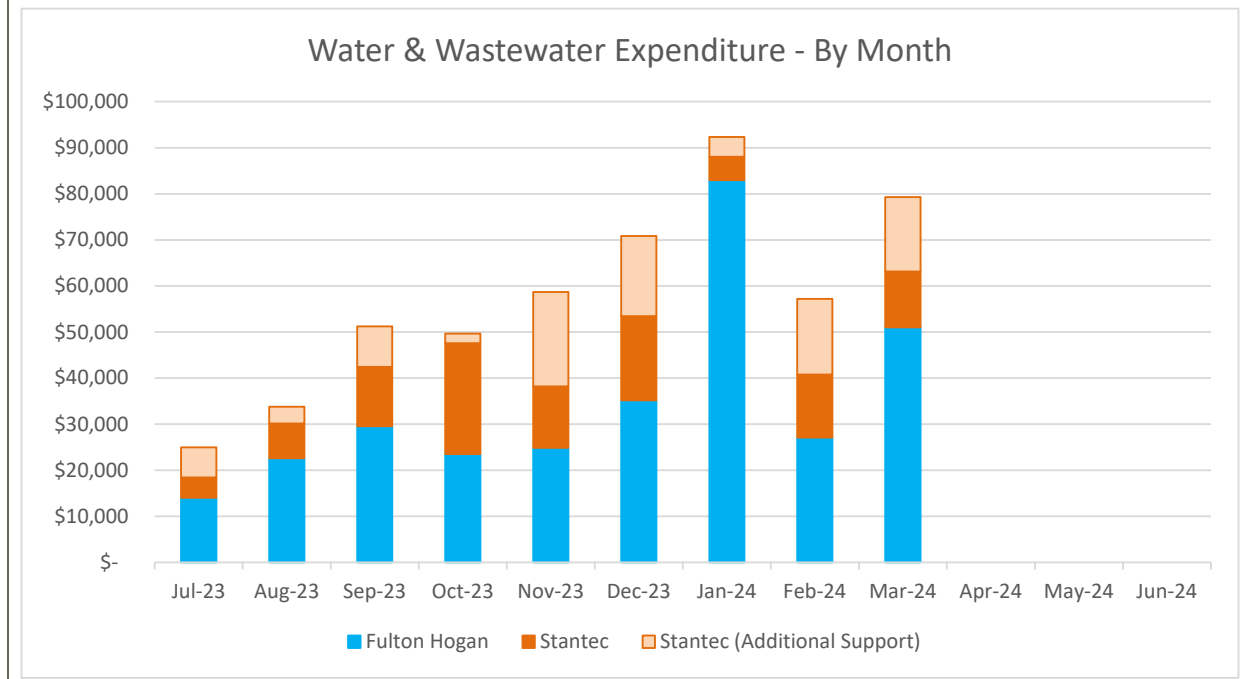
Financial Position: Water and Wastewater

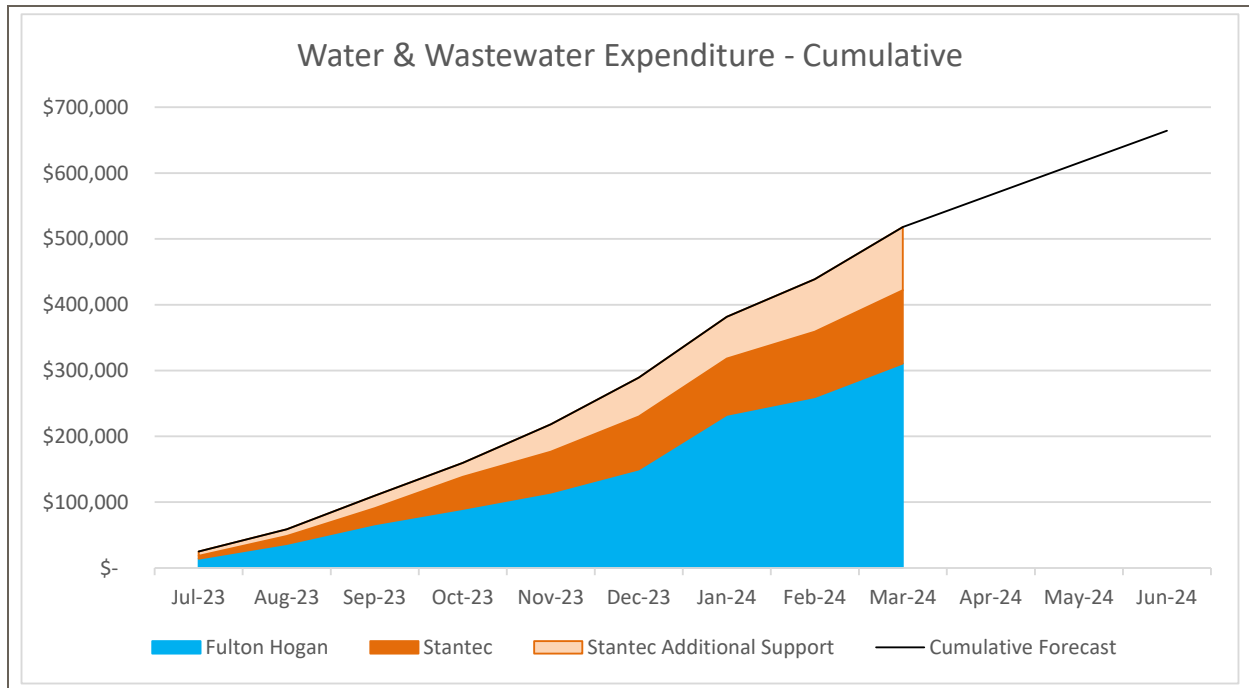
The operational expenditure for W+WW allocated in the 2021-31 LTP for 2023/24 is \$292,000, with additional funding available previously under the 3-water reform and now to support the transition to Local Water Done Well.

The March claim totalled \$57k. The main construction cost was for the service and installation of new equipment on the wastewater treatment plant, and the main engineering costs were from the 30-year plan, water safety plans, and WaterOutlook reporting work for Local Water Done Well.

Expenditure Tracking of Water & Wastewater Funding

Tracking graphs for the W+WW expenditure are presented below.







Roading Update – March 2024

| Short- & Mid-Term Roading Forward Work Programme | |
|--|--|
| Renewals | <ul style="list-style-type: none"> Commence unsealed pavement strengthening works on North Road Installation of updated street name, wayfinding, and guide signage Installation of Bridge and waterway signage |
| Drainage | <ul style="list-style-type: none"> Correction of the scouring on WW-O Road downhill of the power plant Waikawa culvert headwall improvements |
| Whangamoe Bridge Replacement (LCLR) | <ul style="list-style-type: none"> Establishment of boundary fencing and remaining signage. Arrange for a cadastral survey of the road alignment following fence construction. Finalise legal boundaries and apply to Māori Land Court to lodge new titles for adjacent parcels and road. |
| Owenga Loading Facility (LCLR) | <ul style="list-style-type: none"> Resource consent application for the upgrade work submitted, and development of consenting conditions in process Finalise detailed design and costing in consultation with Hunter Civil. Commence ordering structural components and materials. |
| Kaingaroa MakeSafe Works | <ul style="list-style-type: none"> Undertake repair work on the Southern Fender of the Wharf and replace weak and damaged decking planks |
| Professional Services | <ul style="list-style-type: none"> Finalise Activity management plan updates for 2024-27 Complete RLTP documents for Council review and approval in May 2024. |
| Network & Asset management | <ul style="list-style-type: none"> Finalise design works for Maipito Bridge replacement. |
| Long Term Roading Forward Work Programme | |
| Owenga Loading Facility (LCLR) | <ul style="list-style-type: none"> Start shipping plant and structural materials to island, Begin construction of the barge loading facility at Owenga. |
| Kaingaroa MakeSafe Works | <ul style="list-style-type: none"> Ongoing monitoring of condition |

| Pavement Maintenance | |
|--|--|
| <p>Previous Status:</p> <ul style="list-style-type: none"> Intersection works at Taia Hapupu/North Road largely complete. For the strengthening works on North Road between RP33.6-35.4 and RP36.4-37.3 an additional 300mm of cover will be applied to enhance the resilience of North Road against floods from the lagoon | <p>Updates:</p> <ul style="list-style-type: none"> The first 500m of additional cover and strengthening work on North Road has been undertaken |

| Drainage Maintenance | |
|---|---|
| <p>Previous Status:</p> <ul style="list-style-type: none"> Gabion basket for Waikawa headwalls have arrived on island, and will be installed in the coming months | <p>Updates:</p> <ul style="list-style-type: none"> The stormwater scour downhill of the trust building on WW-O Road has been repairs and the shoulder has been widened The excessively high shoulders on North Road at Matarakau have also been cleared to help the pavement surface drain and improve the surface condition |



| Bridge & Structures Maintenance | |
|--|--|
| <p>Previous Status:</p> <ul style="list-style-type: none"> Loose planks on Te Awainanga and Hawaiki Bridges have been repaired | <p>Updates:</p> <ul style="list-style-type: none"> None |
| Whangamoe Bridge Replacement | |
| <p>Previous Status:</p> <ul style="list-style-type: none"> A fencing sub-contractor has been engaged. A cadastral surveyor will be engaged in the next few months to legalise the new road parcel boundaries. Fencelines have been cleared on site and fencing materials have been delivered for installation in the coming weeks. | <p>Updates:</p> <ul style="list-style-type: none"> Fenceline installs are on-going |
| Owenga Loading Ramp Design | |
| <p>Previous Status:</p> <ul style="list-style-type: none"> Resource Consent application lodged, Finalisation of ramp design details being completed. | <p>Updates:</p> <ul style="list-style-type: none"> The consent is currently being reviewed by an Independent Commissioner who will decide the outcome, as CIC is the applicant The consent conditions are being developed by Stantec specialists Hunter Civil has been instructed to begin procuring materials in advance of the consent being granted |
| Professional Services | |
| <p>Previous Status:</p> <ul style="list-style-type: none"> AMP and LTP updates for the 24-27 cycle are ongoing | <p>Updates:</p> <ul style="list-style-type: none"> Minor queries from Audit New Zealand have been received, but it has not been onerous so far. |
| Kaingaroa & Owenga Wharf Repairs | |
| <p>Previous Status:</p> <ul style="list-style-type: none"> ~90% of the jacketing works at Owenga have been completed. Some snags to be addressed in early 2024. Budget remains available for the MakeSafe works package so an assessment will be made of the scope for additional repairs to the fenders at Kaingaroa | <p>Updates:</p> <ul style="list-style-type: none"> Confirmation that Southern Fender Piles and deck planks will be repaired this financial year |
| Stantec Site Visits | |
| <p>Previous Status:</p> <ul style="list-style-type: none"> Rebecca and Nigel attended the Partnering Meeting lead by Fulton Hogan in March. | <p>Updates:</p> <ul style="list-style-type: none"> The next Roding site visit will be during the week of the 2nd to the 5^t of July. |
| CIC catch-ups in Christchurch | |
| <p>Previous Status:</p> <ul style="list-style-type: none"> Owen, Monique, and Paul met with most of the Stantec team in Christchurch to introduce Paul on the 1st December | <p>Updates:</p> <ul style="list-style-type: none"> None |



| NZTA Waka Kotahi Updates | |
|---|---|
| <p><i>Previous Status:</i></p> <ul style="list-style-type: none"> The programme adjustments to the low cost low risk Owenga Loading Ramp have been submitted | <p><i>Updates:</i></p> <ul style="list-style-type: none"> The new government have released the revised Government Policy Statement on Land Transportation, and this has again changed the timelines for the funding applications for the 2024-27 investment period The continuous programme funding submission must be finalised on the 5th of April, and the RLTP does not need to be finalised until May. CIC have still not had any feedback on the Local Road Improvement (Low Cost Low Risk) application, NZTA have suggested it has not been reviewed as the Investment Prioritisation Method has not been released to NZTA yet. NZTA expects to advise indicative 2024-27 allocations at the end of May, but the final funding levels will not be confirmed until September |



Water and Wastewater Update – March 2024

| Contract Documentation | |
|---|--|
| <i>Project:</i> | <i>Current Status:</i> |
| Water Compliance | <ul style="list-style-type: none"> Stantec to revise/prepare a Water Safety Plan (WSP) and Source Water Risk Management Plan (SWRMP) in a combined document for each CIC water supply. Stantec to propose “practicable” monitoring approach and advise Taumata Arowai. Stantec/FH to determine “practicable” approach to operations and compliance monitoring – maximising use of existing on-line systems (M2M and WaterOutlook) |
| Water Supply | |
| <i>Project:</i> | <i>Current Status:</i> |
| All Supplies – Funding and Site Visit | <ul style="list-style-type: none"> CIC is currently considered out-of-scope of the 3Ws Reform. An updated delivery plan is being developed for the remaining transitional funding from Central Government. Drone survey data has been processed and uploaded to Pix4D (cloud based software). 3Ws infrastructure data (e.g., water meters, pipes, valves) from as-built details and on-island knowledge is being added to the portal. Annual servicing by FILTEC was completed this month. |
| Kaingaroa – Lake Rangitai | <ul style="list-style-type: none"> There are some outstanding documentation deficiencies by FILTEC following the upgrade works at the WTP. Materials for the intake extension are on the island and awaiting installation by FH. Wet weather has prevented the completion of this work and was not completed under the grant funding budgets. O&M contract funds will be used to cover the outstanding costs to complete the project when lake levels allow. An interim plan is being developed by FH to complete the intake extension while there is water in the lake. |
| Waitangi water supply | <ul style="list-style-type: none"> There are some outstanding documentation deficiencies by FILTEC following the upgrade works at the WTP. CIC to consider introducing rules for enforcing private repairs within a certain timeframe to minimise loss of water and ensure the supply network can be maintained. Ongoing. CIC to consider introducing rules to enable the disconnection of stormwater connections to the sewage network. Ongoing. CIC to consider whether charges are applied for taking water from the FH yard and/or if water is only able to be taken during hours when the yard is manned (i.e., locked at other times). Ongoing. |
| Reporting/ Monitoring/ Sampling March 2024 | <ul style="list-style-type: none"> Waitangi Water Supply <ul style="list-style-type: none"> E. coli and total coliforms not detected in the raw, treated, or network sample. Treated water turbidity was above the operational target of 0.3 NTU measured by the lab. Complying with DWSNZ for protozoa with UV disinfection system. <ul style="list-style-type: none"> The UV reactor is providing a protozoa barrier. Non-compliance is related to monitoring: Turbidity, UV dose, flow, FAC and pH (2 per week, at least 2 days between samples). UVT is monitored adequately. Kaingaroa Water Supply <ul style="list-style-type: none"> E. coli and Total Coliforms were not detected in the network or treated sample. E.coli and total coliforms detected in the raw sample, as expected with lake source. Still in compliance. Total coliforms were higher than usual. Treated water turbidity was below the operational target of 0.3 NTU. Not complying with DWSNZ for protozoa with UV disinfection system. <ul style="list-style-type: none"> The UV reactor may not have provided a protozoa barrier due to a low UVT reading. UVT has not been consistently above 70%. |



| | |
|---|--|
| | <ul style="list-style-type: none"> ▪ The multiple barriers in place (e.g., fencing, ceramic media filter, carbon filter media, oversized UV reactor) reduces the risk of protozoa in the treated water. ○ The water at Lake Rangitai is still coloured with some being removed at the plant. But the treated and network water still has some colour. • Council Office – Rain Water Supply <ul style="list-style-type: none"> ○ No E.coli or Total Coliforms detected in the treated water sample. ○ UVT was high and a protozoa barrier was being provided. ○ UV lamp and filters are overdue for replacement. • Te One Transfer Station <ul style="list-style-type: none"> ○ No E.coli or Total Coliforms detected in the treated water sample. • MPA Batching Bore (Potential Future Water Supply) <ul style="list-style-type: none"> ○ MPA bore no longer in operation (or sampled). See June 2018 monthly update for results and conclusions. ○ Water level data has been received from ECan for analysis. |
| Wastewater Treatment | |
| <i>Project:</i> | <i>Current Status:</i> |
| WWTP maintenance | <ul style="list-style-type: none"> • Discharge consent review on-going. • 70% of plantings have been planted in the land application area. Remaining 30% of plants due to be planted in 2024. • A new control panel for the UV reactor has been delivered and installed. Issues with the UV reactor were uncovered while commissioning the new control panel (e.g., quartz sleeves, UV sensor glass) that will require repair. • A Variable Speed Drive has been installed for the Balance Tank Mixer to resolve mixing issues. |
| Reporting/ Monitoring/ Sampling March 2024 | <ul style="list-style-type: none"> • Waitangi Treated Wastewater Discharge <ul style="list-style-type: none"> ○ All parameters were below the annual median except for Total Nitrogen and E.coli which were 11 mg/L and 1.0-log higher. The land application system will further reduce nitrogen and micro-organisms prior to reaching groundwater. ○ Stantec to reviewed and proposed algae treatment mitigation options to FH. ○ Regular maintenance of the land application areas (i.e., tall grass / weeds) required. |
| General | |
| | <ul style="list-style-type: none"> • N/A |



Solid Waste Update – March 2024

| Landfill Operation | |
|---|---|
| <p>Current Status</p> <ul style="list-style-type: none"> Fulton Hogan has contacted Viking Containment and will action the liner repair. Stantec has issued Owenga Landfill Annual Environmental Monitoring and Compliance Report, including an email summary of the report, to Council and has reviewed it with Council and Fulton Hogan staff. Fulton Hogan are to pick up on several matters at the landfill, including identifying sampling location G2, checking the level of peat in the treatment plant, and topping it up, if needed, mulching the treated leachate disposal area, and actioning the regular checklists. With landfill almost full across the base, the next lift needs to be implemented with care to ensure stormwater falling on waste is contained within the cell and directed to the leachate pond. The bridge to the leachate pond needs replacing. Fulton Hogan will provide a design proposal for this. | <p>Actions - Stantec</p> <ul style="list-style-type: none"> Stantec to provide Fulton Hogan with a copy of the original wooden bridge design for access to leachate pond outlet. <p>Actions - Council</p> <ul style="list-style-type: none"> Council to work with Fulton Hogan to action report recommendations. Confirmation of repair to liner required. |
| Sludge Lagoon Project | |
| <p>Current Status – no change.</p> <ul style="list-style-type: none"> Stantec has provided a short report on the requirements for installing an overflow to the leachate pond. This has been given to FH. | <p>Actions - Stantec</p> <ul style="list-style-type: none"> No outstanding actions. <p>Actions - Council</p> <ul style="list-style-type: none"> FH staff to install the overflow at the leachate pond. Council to work with Stantec to secure funding for the Sludge Facility Project. |
| Other Waste Management Matters | |
| <p>Current Status:</p> <ul style="list-style-type: none"> Stantec, CIC and FH have held monthly meetings to discuss Solid Waste matters at a management and operational level. Fulton Hogan has recovered material for use as a shelter for the waste oil IBCs. Once in place a bund will be built to prevent spillages. Fulton Hogan has obtained a discounted rate for shipping containers with recyclables to Timaru. The cost will be about \$1,500 per container, which will take about 46 bales at some 14 tonnes in total. The baler at Te One needs repairing. Spares have been sent and a date needs to be set for ERL to visit and complete the repairs. Fulton Hogan is co-ordinating this. Stantec has prepared an Excel spreadsheet of potential Solid Waste projects that are presently unfunded. Stantec has contacted MyNoke vermi-composting (i.e., worm farming) to sound them out for a possible Chatham Islands project. MyNoke are busy concentrating on existing projects and do not have capacity to expand elsewhere at present. The final versions of the Solid Waste Bylaw and Waste Management and Minimisation Plan have been issued. | <p>Actions - Stantec</p> <ul style="list-style-type: none"> Stantec to complete estimate of operation and capital costs for inclusion in the LTP. This is to include projects that entail maintenance or replacement from time to time. Stantec to prepare agendas for directing monthly Solid Waste meetings. Stantec to assist Council, as needs be, with decisions on introducing SW charges. <p>Actions - Council</p> <ul style="list-style-type: none"> Council to determine further action regarding Solid Waste Charging Council to decide on a course of action for dealing with most pressing solid waste issues, including organic wastes and scrap steel. |



4. Works & Services

4.2 Fulton Hogan Road Maintenance Report March 2024

| | |
|---------------------------|-------------------------------|
| Date of meeting | 2 May 2024 |
| Agenda item number | 4.2 |
| Author/s | Fulton Hogan Contract Manager |

Purpose

To inform and update the Council on the Chatham Islands Road Maintenance programme.

Attached is the March 2024 monthly report from Fulton Hogan.

Recommendation

THAT the report be received.



chatham islands council



Fulton Hogan



High Shoulder Removal At Matarakau

CHATHAM ISLANDS ROAD
MAINTENANCE CONTRACT
MONTHLY REPORT
MARCH 2024

Work Summary

Outline of work carried out during month

Routine Maintenance and Operations

Pavement Renewals

Sealed Road Resurfacing

Drainage Renewals

Bridge and Structure Renewals

Traffic Services

Minor Improvements

Vegetation Control

Dayworks

Programmed Work for following month

Schedule of Work by Road Name

1. Maintenance Grading
2. Unsealed Maintenance Metaling

Next Month's Target

Crash Damage Report Summary

Monthly Safety Report and Statistics

1. Safety Engagements

Metal Stockpiles

CIC Owned Materials

Signs

Culvert Pipes

Environmental Compliance & Feedback

Environmental Compliance

Stakeholder Complaints Register

Public Relations & Community Involvement

Innovation

When conditions allow we will continue with the blended maintenance material and continue to monitor areas already done to gauge how they perform in the wet/dry conditions.

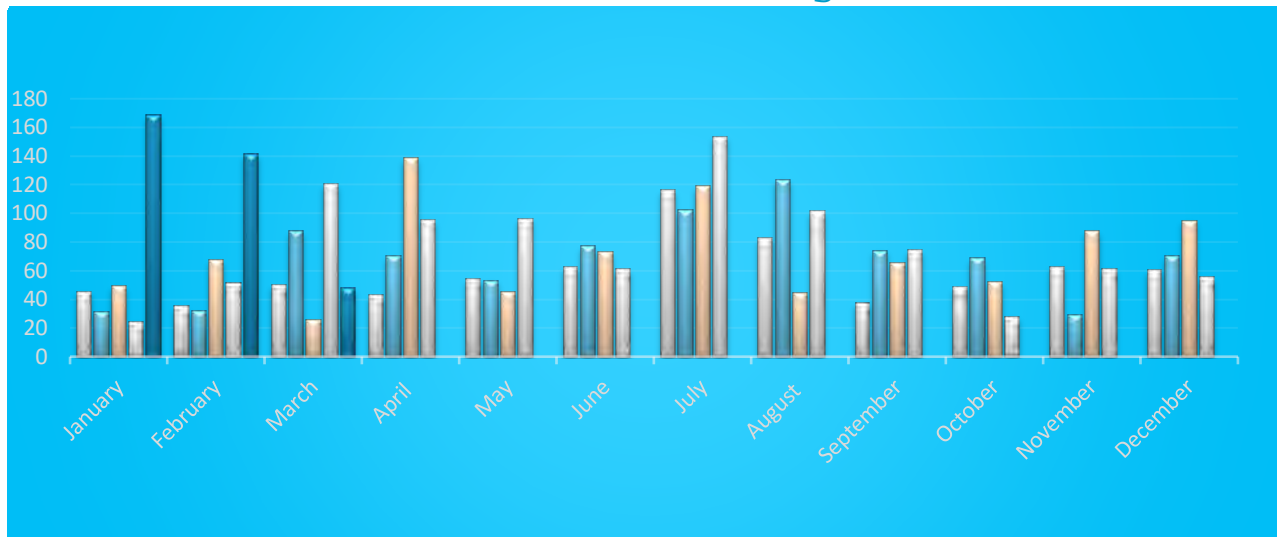
Summary of Monthly Progress Claim by Work Category

1. Miscellaneous
2. Traffic Counting
3. Pitt Island
4. Wind Damage

Photos

Work Summary

Outline of work carried out during the month.



47.5mm rainfall recorded for 1st - 26th March in the Waitangi yard.

Routine Maintenance and Operations

Weather has settled down this month allowing us to catch up with any required maintenance works, especially maintenance grading and metaling where required.

Pavement Renewals

Have started pavement strengthening works on North Road in the low flood prone areas.

Also removed high shoulders on a section of North Road at Matarakau where vegetation was encroaching onto the pavement narrowing the carriageway.

Sealed Road Resurfacing

Drainage Renewals

Found a couple of old culvert pipes that were not in the system while doing the shoulder clearing. They were broken so we have replaced them.

Bridge and Structure Renewals

Traffic Services

Started putting up the new road name blades.

Minor Improvements

Vegetation Control

Grass growing and requiring a lot of attention still to keep it in check.

Dayworks

Programmed Work for following month

Complete the strengthening works on sections of North Road.
Install gabion basket headwalls on Waikawa culvert so pavement can be raised & widened so bridge weight restrictions can be removed.

Schedule of Work by Road Name

1. Maintenance Grading

- Carried out as required during the month on the following roads:

| Road ID | Disp | Road ID | Start RP | End RP | Quantity M |
|-----------------|------|---------|----------|--------------|-----------------|
| TUKU ROAD | 5378 | 111 | 700 | 14500 | 13000 |
| KAINGAROA ROAD | 5379 | 126 | 0 | 5000 | 5000 |
| KAIWHATA ROAD | 5380 | 31 | 0 | 1050 | 1050 |
| MAIPITO ROAD | 5381 | 101 | 500 | 2100 | 1585 |
| NORTH ROAD | 5385 | 21 | 4590 | 48500 | 40300 |
| PORT HUTT ROAD | 5386 | 51 | 0 | 16615 | 15500 |
| AIR BASE ROAD | 5387 | 71 | 0 | 5900 | 5900 |
| WHAREKAURI ROAD | 5391 | 121 | 0 | 4829 | 2200 |
| WAITANGI WEST | 5392 | 61 | 0 | 11690 | 11400 |
| WW-O ROAD | 5397 | 11 | 4440 | 20395 | 14755 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | Total | 110690m |
| | | | | | 110.69km |

2. Unsealed Maintenance Metaling

| Road ID | Disp | Road ID | Start RP | End RP | Quantity | |
|----------------|------|---------------|----------|-----------------------|--------------|-----------|
| NORTH ROAD | 5374 | 21 | 4590 | 40500 | 328 | |
| KAINGAROA ROAD | 5375 | 126 | 0 | 5900 | 40 | |
| WW-O ROAD | 5390 | 11 | 4440 | 15000 | 8 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | Totals | | This Month | 376 | m3 |
| | | | | Revised Target | 50500 | m3 |
| | | | | Contract TD | 49874 | m3 |

Next Month's Target

Currently 626m3 behind at this stage due to the dry nature of the roads.

Crash Damage Report Summary

Crash Damage Report

| Date | Event | Action | Repaired Y/N |
|----------|---|---|--|
| 19/05/23 | A vehicle ran over the islands and through the gardens on Page's corner. | No official report of harm or damage to road. Vehicle not healthy. | Yes Garden edging needs to be replaced. |
| 20/05/23 | A vehicle failed to take the corner at the bottom of Target Hill and rolled in the drain between George Day's and Cameron's access. | 1 person was trapped and upon removal was air lifted to NZ for treatment. | Y Slight shoulder and pavement damage. |
| 28/07/23 | A vehicle went through both sets of railings on Nairn bridge and landed on the beach. | Damage not found till the next morning and made safe. | Y New post & railings installed. |
| 12/08/23 | Vehicle v's beast on North Road just past Murphy's causing extensive damage to the front end of the vehicle. Beast got up and ran away! | Vehicle moved off to the side to be recovered later. | N |

Network Inspections

| Month | Inspection Type | Faults Identified | Inspected By |
|---------------|-----------------|---|--------------|
| June 2023 | Day | All roads checked after heavy rain event for damage. | All Crews |
| July 2023 | Day | All roads check regularly through the month due to the extreme wet weather. | All Crews |
| August 2023 | Day | All roads checked regularly through the month due to the extremely wet conditions. | All Crews |
| October 2023 | Day | No problems found throughout the network while undertaking the Roadroid survey apart from grass getting long on verges. | Phil |
| December 2023 | Day | Roadroid survey done in conjunction with a pre xmas audit of the network. | Phil |
| February 2024 | Day | No problems found throughout the network while undertaking the summer Roadroid survey. | Tomby |
| March 2024 | Day | Drive around the network to access and work out a 3-month program of works required. | Phil |

Monthly Safety Report and Statistics

Nothing to report.

1. Safety Engagements

| Date | Near Miss | Incident | Lost Time Injury | Plant Damage | Depot/Worksite Inspections |
|----------|-----------|----------|------------------|--------------|--|
| 22/08/22 | N | N | N | N | HSQES site audit carried out while crew clearing culvert ends = all ok. |
| 12/09/22 | N | N | N | N | Target Hill counterfort drains = making sure correct installation procedure being followed = all ok. |
| 7/12/22 | N | N | N | N | Reseal site inspection = all TM in place and sufficient. |
| 29/3/23 | N | N | N | N | Tiki Tiki water plant check with Kirsten. |
| 12/05/23 | N | N | N | N | Te Awainanga Bridge cleat replacements. |
| 17/05/23 | N | N | N | N | Whangamoe Bridge Replacement |
| 16/08/23 | N | N | N | N | Audit done on the workshop by Andy Allen. |
| 19/10/23 | N | N | N | N | New workshop washdown area checked while slab being poured to make sure everyone observing FH SOP's |
| 20/12/23 | N | N | N | N | Workshop inspected to see the changes made by the new mechanic = all good so far. |

Metal Stockpiles

| 31/03/2024 | | | | | | | |
|-----------------|-------------|-------|-------------|--------------|-------|---------|---------|
| Site | AP40 Schist | AP65 | AP32 Basalt | AP100 Schist | AP20 | G3 Chip | G5 Chip |
| Waitaha Schist | 5,252 | 0 | 0 | 6,919 | 0 | | |
| Waitaha Basalt | 0 | 2,912 | 5,252 | 0 | 355 | 301 | 255 |
| Paritu | 2,350 | 0 | 0 | 0 | 0 | | |
| Stoney Crossing | 0 | 2,442 | 8,266 | 0 | 2,382 | 287 | 361 |
| Yard | 0 | 0 | 0 | 0 | 0 | | |
| Ohinemama | 0 | 0 | 0 | 0 | 0 | | |
| Muirsons Schist | 3,520 | 0 | 0 | 1,242 | 0 | | |
| | 11,122 | 5,354 | 13,518 | 8,161 | 2,737 | 588 | 616 |

CIC Owned Materials Signs

| Item Description | Unit | Purchased | Used Mar 2024 | End Measure | Comments |
|---------------------|------|-----------|---------------|-------------|----------|
| Signs | | | | | |
| CS85 North Rd | ea. | | | 1 | |
| CS85 Port Hutt Rd | ea. | | | 1 | |
| RG1 | ea. | | | 1 | |
| RG2 | ea. | | | 0 | |
| RM6 White | ea. | | | 6 | |
| RM6 Yellow | ea. | | | 5 | |
| RM7 | ea. | | | 16 | |
| P66X242 | ea. | | | 7 | |
| PW11 | ea. | | | 1 | |
| PW11.1L | ea. | | | 1 | |
| PW11.1R | ea. | | | 1 | |
| PW12L | ea. | | | 1 | 900 |
| PW12R | ea. | | | 1 | |
| PW24 | ea. | | | 2 | |
| PW25 65KM | ea. | | | 1 | |
| PW28 | ea. | | | 1 | |
| PW34.1 | ea. | | | 1 | 900 Y |
| PW34.2 | ea. | | | 2 | |
| PW37 | ea. | | | 1 | 900 |
| PW49 FIRE ENGINE | ea. | | | 2 | |
| PWSX1 | ea. | | | 2 | |
| RH-4 | ea. | | | 2 | |
| PW54 | ea. | | | 2 | |
| Marker pegs | | | | | |
| EMP | ea. | | | 370 | |
| CULVERT MARKERS | ea. | | | 45 | |
| WHITE RAPID MARKERS | ea. | | | 60 | |
| Misc. Items | | | | | |
| ACROW PROPS | ea. | | | 6 | |
| ROAD COUNTER | ea. | | | 1 | |
| ROUGHOMETER | ea. | | | 1 | |

Culvert Pipes

ALUFLOW

| Item Description | Unit | Used | Purchased | End Measure |
|------------------|------|------|-----------|-------------|
| 375mm | m | | | 5 |
| 450mm | m | | | 0 |
| 600mm | m | | | 0 |
| 750mm | m | | | 6 |

Civilboss

| | | | | |
|--------|---|----|--|----|
| 225mm | m | | | 24 |
| 300mm | m | 18 | | 18 |
| 375mm | m | | | 54 |
| 450mm | m | | | 12 |
| 525mm | m | | | 15 |
| 600mm | m | | | 30 |
| 700mm | m | | | 30 |
| 800mm | m | | | 24 |
| 1000mm | m | | | 12 |

Builders Mix

| | | | | |
|--------------------------|-------|--|--|----|
| CEMENT | T | | | 0 |
| GEOGRID Tensar Triax 160 | Rolls | | | 14 |
| BIDIM CLOTH 4m x 100m | Rolls | | | 14 |
| BIDIM CLOTH 4m x 50m | Rolls | | | 13 |

Environmental Compliance

| Date | Site Inspected | Compliant Y/N | Abatement Order Issued | Corrective Action Required | Completed By |
|----------|--------------------------------|---------------|------------------------|----------------------------|--------------|
| 14/03/22 | WW-O Rd Culvert Installation | Y | N | N | Phil |
| 27/06/22 | Stoney Crossing Quarry | Y | N | N | Phil |
| 26/08/22 | North Road Strengthening works | Y | N | N | Phil |
| 13/10/22 | Target Hill Rehab Site | Y | N | N | Phil |
| 1/12/22 | Kaingaroa Rehab Site | Y | N | N | Tomby |
| 21/02/23 | Whangamoe Bridge Replacement | Y | N | N | Tomby |
| 18/05/23 | Whangamoe Bridge Replacement | Y | N | N | Tomby |

| | | | | | |
|----------|---------------------------|---|---|---|------|
| 27/06/23 | FH Workshop Wash Down Pad | Y | N | N | Phil |
|----------|---------------------------|---|---|---|------|

Stakeholder Complaints Register

| Month | Council/ Public Complaint | Complaint | Repair Undertaken | Response Time |
|----------|---------------------------------|---|--|-------------------------------------|
| 16/06/23 | Public | Dead Cattle on the side of the road. | All were more than 5m away from the edge so were left to decompose. | No Action Taken |
| July 23 | Public | A few complaints through the month about water on roads and isolated potholes. | No action taken till weather and conditions allowed. | Ongoing |
| 1/08/23 | Public | Large soft area on Owenga side of Te Awainanga bridge and a large pothole off the end of the seal on Target Hill. | Pothole and soft area repaired when weather allowed. | 2 Weeks |
| 19/10/23 | Public | 2 x big potholes Port Hutt side of Paritu quarry. | Filled when next out that way | 1 Week |
| 24/10/23 | Public | Blocked culvert at the top of the Awatotara cutting. | Already know about it and it is in the programme to be replaced. | Non-Urgent |
| 18/12/23 | Public | Size of metal on the road between Matarakau and Kaingaroa seems to be very large. | Metal size has not changed. There is a lot more loose material due to the dry conditions at the moment and the grader just been over the road. | No Action Taken |
| 18/12/23 | Public | Grader has turned around on the new seal at Kaingaroa and scuffed it. | Inspected and no repairs required. | Have spoken to the grader operator. |

Public Relations & Community Involvement

Innovation

Summary of Monthly Progress Claim by Work Category

| | Mar - 24 | Separable Portion One - Roothing | | | | |
|------|-----------------------------|----------------------------------|-----------------------|-----------------------|-----------------------|--------------------|
| Item | Work Category | Value for Month | Value YTD Feb | Value YTD | Annual Budget | % of Annual Budget |
| 1 | P&G Other | \$181,611.05 | \$967,311.51 | \$1,148,922.56 | \$1,100,000.00 | 104.45% |
| 2 | Routine Maintenance and Ops | \$62,478.03 | \$482,017.52 | \$544,495.55 | \$810,000.00 | 67.22% |
| 3 | Pavement Renewals | \$152,821.50 | \$79,527.68 | \$232,349.18 | \$840,000.00 | 27.66% |
| 4 | Sealed Road Resurfacing | \$0 | \$0 | \$0.00 | \$8,000.00 | 0.00% |
| 5 | Drainage Renewals | \$0 | \$16,132.32 | \$16,132.32 | \$283,000.00 | 5.70% |
| 6 | Bridge Renewals | \$0 | \$35,716.52 | \$35,716.52 | \$100,000.00 | 35.72% |
| 7 | Traffic Services | \$481.84 | \$58,244.27 | \$58,726.11 | \$44,000.00 | 133.47% |
| 8 | Minor Improvements | \$0 | \$4,373.18 | \$4,373.18 | \$170,000.00 | 2.57% |
| 9 | Vegetation Control | \$5,408.41 | \$43,267.28 | \$48,675.69 | \$60,000.00 | 81.13% |
| 11 | Dayworks | \$38,249.81 | \$131,700.53 | \$169,950.34 | \$150,000.00 | 113.30% |
| | | | | | | |
| | Total | \$441,050.64 | \$1,818,290.81 | \$2,259,341.45 | \$3,565,000.00 | 63.38% |

1. Miscellaneous

2. Traffic Counting

Dylan to assist Tomby in setting software up on his computer..

3. Pitt Island

4. Wind Damage

No reported or visible signs of damage this month.

Photos





Matarakau High Shoulder Removal





North Road Strengthening Works



4. Works & Services

4.3 Fulton Hogan Water and Wastewater Operation Contract Report March 2024

| | |
|---------------------------|--------------------------------|
| Date of meeting | 2 May 2024 |
| Agenda item number | 4.3 |
| Author/s | Fulton Hogan Contracts Manager |

Purpose

To inform and update the Council on the Chatham Islands Water and Wastewater Operation programme.

Recommendations

THAT the report be received.

Background

Attached is the March 2024 report from Fulton Hogan.

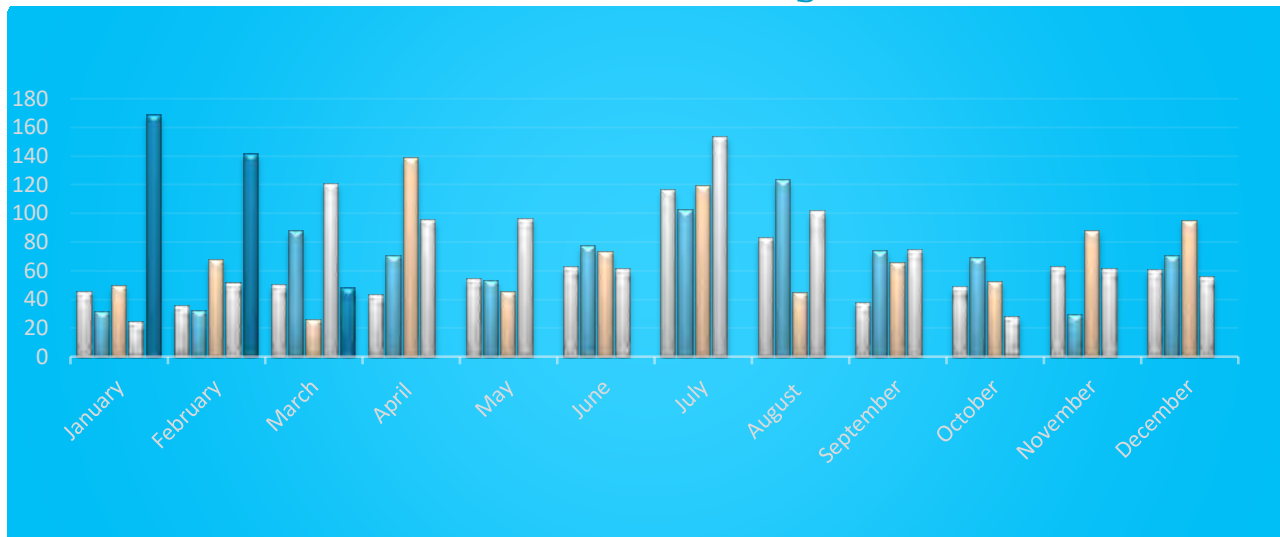


WWWT Plant

CHATHAM ISLANDS WATER AND WASTEWATER OPERATION CONTRACT MONTHLY REPORT March 2024

Work Summary

Outline of work carried out during the month.



47.5mm rainfall recorded for 1st - 26th March in the Waitangi yard.

Water Supply Operation & Maintenance

Leighton from Filtec in during March to do the annual services on the TikiTiki and Kaingaroa water plants. No real issues arising from the service or calibration of the meters etc.

Steve in with a sparky to do the service at the WWWT plant and install the new UV board. A couple of minor issues to attend to but nothing that interferes with the plants operational capacity.

Water Treatment

Tiki Tiki plant = Plant has been behaving ok with consistent readings throughout the month.

Kaingaroa plant = Again, no problems with the plant over the last month.

Wastewater Treatment Plant at Waitangi

Water in the irrigation tank is starting to generate another layer of algae. This will eventually lead to the filters having to be cleaned more often. We are currently working out how we can control this better and reduce algae growth.

Have checked all sprinklers and remarked them so they wont be run over by the mower.

Dayworks - Water

Dayworks - Wastewater

Water and Wastewater Reticulation Network

Water and Wastewater Treatment Plant: Monitoring

WWWT plant and water samples all good.

Kaingaroa Lake Monitoring Post = lake level is still very high preventing us from installing the new intake filter.

Summary of Monthly Progress Claim by Work Category

| | Mar-24 | | Separable Portion Two - Water and Wastewater | | | |
|------|-----------------------------------|-----------------|--|--------------|---------------|--------------------|
| Item | Work Category | Value for month | Value Feb YTD | Value YTD | Annual Budget | % of Annual Budget |
| 13 | Preliminary and General | \$13,960.15 | \$66,109.87 | \$80,070.02 | 65,215.87 | 122.78% |
| 14 | Water Supply Ops and Maint | \$2,438.94 | \$7,378.56 | \$9,817.50 | 11,067.84 | 88.70% |
| 15 | Water Treatment | \$3,870.22 | \$26,165.64 | \$30,035.86 | 35,374.68 | 84.91% |
| 16 | WWTP Waitangi | \$922.32 | \$12,134.96 | \$13,057.28 | 11,087.84 | 117.76% |
| 17 | Dayworks - Water | \$ | \$31,742.71 | \$31,742.71 | 55,024.41 | 57.69% |
| 18 | Dayworks - Wastewater | \$26,941.67 | \$102,779.54 | \$129,721.21 | 94,060.40 | 137.91% |
| 19 | Water and Wastewater Reticulation | \$1,691.80 | \$461.16 | \$2,152.96 | | |
| 20 | Treatment Plant Monitoring | \$1,188.52 | \$9,496.16 | \$10,684.68 | 14,262.24 | 74.92% |
| | | | | | | |
| | Total | \$51,013.62 | \$256,268.60 | \$307,282.22 | \$286,073.28 | 107.41% |

Programmed Work for Following Month

Water Meter Report

Done at the start of the month, had 3 properties identified with leaks which were dealt with.

Irrigation Dosing

Evaporation process has been good due to the regular mowing with no excess runoff.

Quality Assurance

Site Safety Report

| Date | Near Miss | Incident | Lost Time Injury | Plant Damage | Depot/Worksite Inspections |
|----------|-----------|----------|------------------|--------------|--|
| 7/12/22 | N | N | N | N | Steve in to do the annual service and inspection = all ok. |
| 29/03/23 | N | N | N | N | Crew working with FH sparky on the new balance tank. |
| 23/05/23 | N | N | N | N | Lake Rangitai pump shed new motor installation. |
| 23/08/23 | N | N | N | N | WWWT Plant check once service had been completed. |
| 19/03/24 | N | N | N | N | Water & WWWT plant checks after services. |

Environmental Non Compliance

Monthly Stocktake of Supplies

General Supplies Stockpile - Month Ending March 2024

| | Stock Purchased | Stock End of Previous Month | Stock Used | Stock Remaining End of Month |
|----------|-----------------|-----------------------------|------------|------------------------------|
| Salt | | 180 Bags | 10 | 170bags |
| Chlorine | 100 | 40lts | 40lts | 140lts |

PHOTO







4. Works & Services

4.4 Fulton Hogan Waste Management Operation Contract Report March 2024

| | |
|---------------------------|---|
| Date of meeting | 2 May 2024 |
| Agenda item number | 4.4 |
| Author/s | Dylan Fraser – Fulton Hogan Divisional Manager, Maintenance |

Purpose

To inform and update the Council on the Chatham Islands Waste Management Operation programme.

Recommendations

THAT the reports be received.

Background

Attached to this report is the March 2024 Waste Management report from Fulton Hogan.



Remodelled front face of the Te One Transfer Station

CHATHAM ISLANDS WASTE MANAGEMENT CONTRACT MONTHLY REPORT MARCH 2024

Introduction
Te One Transfer Station
Owenga Landfill
Appendix 1

Introduction

This report provides a summary of waste management activities through the month of March 2024.

Staff

No changes to staff this month.

Te One Transfer Station

The beginning of the Month saw only one half day closure due to High winds, yet through out the month our normal open days proceeded business as usual.

A month of networking and helping the community out, With the Chatham Islands Festival coming up, annually we try to support the event by providing skips, recycling racks and any support on how best to collect the days waste. Sadly when dropping off the bins Fulton Hogan worker Arlette had an incident where by poor judgement and decision making managed to hook the Hiab onto the power lines. First responders were alerted immediately, and community support and Chatham Islands Electricity Team were onsite to assist and manage the situation. Throughout the afternoon and night, the Electricity Team worked hard and restored the power to the town, ready for the festival the next day. Thankfully we were able to provide a skip for the day and the next week we hand loaded and collected the rubbish. Not a bad effort at all as well (thumbs up) this year we noticed that the store holders made great efforts to minimise the use of non-recyclable containers the majority of beverages came in glass or mugs to re wash and the external visitors from New Zealand "Mitre 10" etc came in with less cardboard packaging.

Networking with Shipping. A brief catchup with Floyd Prendeville from Chatham Islands shipping, onsite at the wharf Shipping had an old openside stock crate full of pallets, floor matting for stock, and feed trays. Floyd was wanting to know the best way to get rid of it. My eyes lit up!

Another mans trash is another mans treasure!

Simon Norman has delivered the ugliest (has practical potential) stock crate to Te One Transfer Station. At the wharf the stock crate did have another full shipping container stacked on top of it which indicated to me that it still has good bones and with minimal work we will be using this to

store the oil IBC containers in. The internal waste slash treasures will be taken out, the matting will be re used as weed matt for the frontage bund and planting, the feed troughs can be reused by public along with the pallets. Watch this space.

With the ship going into dry dock our cardboard intake has been minimal.

On Islands visit from Fulton Hogan Management team Michael Fulton, Darren Courtage and Dylan Fraser, was great to show Darren and Michael around the Te One Transfer Station and what we do.

Kaingaroa Transfer Station:

It is that time of year when local fisherman service their pots. We have picked up 1 full skip of rope and are expecting another over the next couple of months. Their general waste has slowed down, and the community still continue to recycle really well.

Owenga Landfill

The peat drum has had a good weed out and the treatment system is flowing well. We have been using more of the existing waste, crushed up woody waste and soil as cover to help manage the blow outs. There is some moisture present on top of the pad or cell which helps to mix in new waste then dries out. We did attempt to make a netting out of old rope to add height to the surrounding fence, however the netting would become very heavy and takes a long time to make. We have however found some basic re useable garden windbreak salvaged from the skips at Te One that we will install in the coming month.



The waste records are included as Appendix 1 of this report.

Appendix 1

Te One Waste Record

Owenga Waste Record

4. WORKS & SERVICES

4.5 Owenga Landfill Annual Monitoring Report Summary

| | |
|---------------------------|------------------------|
| Date of meeting | 2 May 2024 |
| Agenda item number | 4.5 |
| Author/s | Phil Landmark, Stantec |

Purpose

To update Council on the performance of the Owenga Landfill.

Recommendation

THAT the report be received.

Background

The full Owenga Landfill Monitoring Report was emailed to councillors on Friday 22 March 2024. The report covers the first year of operation, from 1 July 2022 to 30 June 2023. Below is a summary of the report.

The consent conditions state what needs to be included in the Annual Report, including:

- any complaints,
- records of waste disposed and cover used,
- estimate of compaction density achieved,
- records of landfill development,
- results and interpretation of environmental monitoring undertaken,
- and records of operation, inspections and maintenance undertaken.

No complaints were received.

299.2 tonnes of waste were disposed in the landfill, this quantity partly being estimated from volumes before the weighbridge was installed, and part measured. All waste is now measured accurately over the weighbridge.



Approximately 69 tonnes of cover was used, with three-quarters being crushed glass, and the rest being from on-site soils.

A site survey was not undertaken, so an accurate estimate of waste compaction could not be done. An approximate assessment of the compaction indicated that it was at an acceptable level.

No landfill development was done during the reporting year.

Environmental monitoring of leachate, groundwater and surface water is done quarterly by ECan to meet resource consent conditions.

The samples are tested in a laboratory for selected chemicals, as stated in the consent conditions, and the results are assessed against interim trigger values (ITV). These are limits which were established on the basis of testing done on samples taken between June 2013 and December 2021, that is, before any waste had been disposed of at the landfill. If ITVs are exceeded then the first step is to determine if the exceedance is caused by leachate. If so, then further investigation, which is usually additional monitoring, would be called for. This is a proactive approach to manage issues early, before any large scale or irreversible effects occur.

Groundwater is to be sampled at 11 locations, with four locations being drain outlets or streams within the depression (peat burn hole), and the other locations being shallow bores that have been developed on site. Location G2, being the outlet of the underground stream and located downstream of the landfill footprint, was not sampled because its location is difficult to identify in the field. This needs to be established and marked with a pole to make it easy to find in the field.

There are 4 surface water monitoring locations, within the two streams on either side of the landfill property, and with 2 locations being upstream of the landfill, and 2 being downstream.

There are 3 leachate monitoring locations; the inlet and outlet of the leachate pond, and the outlet of the pilot leachate treatment plant.

All surface water sample results were below the ITVs except for zinc at a sampling location upstream of the landfill. Zinc has similarly been elevated even before the landfill was commissioned, so this is not of concern.

Whilst some of the ITVs were exceeded for groundwater samples, such exceedances also occurred before the landfill was commissioned and the results were not considered to be a result of leachate and are therefore not of concern.



Monitoring of the landfill leachate showed no results for concern.

Overall, the environmental monitoring showed no cause for concern, and needs to continue, as required by the consent conditions, and stated in the Landfill Development and Management Plan.

It is recommended that the monitoring locations be surveyed so that they can be identified easily in the future.

There are requirements for aspects of the landfill operations to be monitored and various checklists have been developed to assist the contractor. The checklists are for daily, weekly, monthly, three-monthly, and annual activities. These should be followed and filled out, where practically possible (e.g., contractor is not on site daily).

Overall, it is considered that the contractor is managing the landfill appropriately.

Attachment

1. Owenga Landfill Annual Monitoring Report

Owenga Landfill

Annual Environmental Monitoring and Compliance Report



December 2023

Ref: 310101037

PREPARED FOR:

Chatham Islands Council

PREPARED BY:

Kathryn Halder

Revision Schedule

| Revision No. | Date | Description | Prepared by | Quality Reviewer | Independent Reviewer | Project Manager Final Approval |
|--------------|----------|------------------|----------------|------------------|----------------------|--------------------------------|
| 01 | 06/12/23 | Final for Client | Kathryn Halder | Tess Brothersen | Phil Landmark | Alistair McGaughran |
| | | | | | | |

Disclaimer

The conclusions in the report are Stantec's professional opinion, as of the time of the report, and concerning the scope described in the report. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. The report relates solely to the specific project for which Stantec was retained and the stated purpose for which the report was prepared. The report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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1 Introduction

The Owenga Landfill (**the landfill**) is a new waste disposal facility owned by the Chatham Islands Council (**the CIC**). It was constructed in 2014 by Downer and commissioned in 2018, the site then sat unused until 2022. In late 2020 Fulton Hogan were appointed for the management of waste services on the Chatham Islands including the operation and maintenance of the landfill. The landfill commenced waste acceptance in July 2022.

The landfill is located on land owned by the Preece family on the Waitangi Wharf to Owenga Road. The site is approximately 200m off the road through to gates. The first landfill cell has been constructed and there is capacity on site to construct a further nine cells in time. CIC has an agreement with the Preece family as landowners of the property on which the landfill is located.

A resource consent (Discharge Permit CIC/2013/02 – To discharge solid waste into land, stormwater and treated leachate onto land, and dust, odour and landfill gas into air) (**the discharge permit**) has been obtained by CIC for discharges associated with the landfill operations, and this was varied in 2016 to allow a sludge treatment facility to be constructed within the landfill site.

CIC is responsible for compliance with the discharge permit conditions and environmental reporting requirements set out within the discharge permit. Condition 12 of the discharge permit states:

“On the last working day of September following the first anniversary of exercising this consent, the Consent Holder shall submit an annual report to the Consent Authority. The annual report shall summarise the previous year’s development and operation, identify any management improvements and present monitoring information including:

- a) records of any complaints received;
- b) records of waste types and quantities received;
- c) records of quantity of cover material used;
- d) estimates of landfill compaction density achieved;
- e) records of any landfill development undertaken during the course of the previous year;
- f) results of all environmental and landfill operation monitoring undertaken during the year;
- g) interpretation of the results, in the context of the previous results; and
- h) records of operation, inspection and maintenance of the leachate collection, treatment and disposal systems.

Since the landfill only commenced accepting waste in July 2022, this annual monitoring report has been prepared by Stantec on behalf of CIC to meet the compliance requirements of this condition and covers the 12-month period 1 July 2022 to 30 June 2023 equating to the 2022/23 financial year (**FY 22/23**) for the CIC.

2 Landfill Management Compliance Records

2.1 Records of Any Complaints Received

Under condition (9) of the discharge permit a complaints register must be maintained for all complaints relating to the use of the site as a landfill and sludge treatment facility. Any complaints received must be investigated as soon as practicable and measures implemented to mitigate any actual significant adverse effect.

Monitoring of odour and dust is also through the complaints procedure in accordance with condition 6 of the ‘Specific Conditions Discharge of Contaminants into Air’ of the discharge permit.

During the reporting period Fulton Hogan (**the landfill operator**) has not received any complaints regarding the Landfill.



2.2 Records of Waste Types and Quantities Received

The landfill received 299.2T of municipal waste material over the reporting period, the amount of waste received each month is shown in Table 2-1. This value differs from that reported in the OWL system as the initial 134.2T was from the Te One Landfill (now closed) and had already been accounted for. Waste material is accepted by the landfill operator in accordance with the waste acceptance criteria in condition 2 of the 'Specific Conditions to Discharge Solid Waste onto Land' contained within the discharge permit.

Table 2-1 Waste received and diverted at Owenga Landfill over FY 22/23.

| Date | Gross Tonnage All material that enters the facility | Diverted Tonnage All material that is diverted from the facility | Net Tonnage Gross minus Diverted Tonnage - Tonnage on which the Waste Levy is Payable |
|--------------|--|---|--|
| July 22 | 134.23 | 0 | 134.23 |
| August 22 | 0 | 0 | 0 |
| September 22 | 17.81 | 0 | 17.81 |
| October 22 | 5.44 | 0 | 5.44 |
| November 22 | 5.92 | 0 | 5.92 |
| December 22 | 14.33 | 0 | 14.33 |
| January 23 | | 0 | |
| February 23 | 17.20 | 0 | 17.20 |
| March 23 | 25.95 | 0 | 25.95 |
| April 23 | 37.50 | 0 | 37.50 |
| May 23 | 18.52 | 0 | 18.52 |
| June 23 | 22.3 | 0 | 22.3 |
| Total | 299.2 | 0 | 299.2 |

Resource recovery and recycling mainly occurs at the Te One Resource Recovery Centre (**RRC**) and Kaingaroa Transfer Station (**TS**) with glass diverted and crushed before being used as daily cover material at the landfill. Provision is made within the reporting for the landfill operator to account for any additional diversion of materials at the landfill. During the reporting period all waste was disposed of. Prior to the weighbridge being operational, the tonnage of material accepted at the landfill and cover material used was estimated based on the conversion factors provided in Table 2-2.

Table 2-2 Conversion factors used to convert measured volumes to estimated tonnage.

| Date | Conversion Factor kg/m ³ |
|--|-------------------------------------|
| Waste or material in rubbish bags or carried in cars | 130 kg/m ³ |
| Uncompacted general waste or material | 200 kg/m ³ |
| Compacted waste or material | 320 kg/m ³ |
| High-density waste or material | 1500 kg/m ³ |
| Cover material | 448 kg/m ³ |




2.3 Records of Quantity of Cover Material Used

The estimated amount of cover material used the landfill during the reporting period is 53T of glass and 16T of soil. The monthly records are included in Table 2-3. The quantity of cover used is recorded in m³ and then converted into annual tonnages based on the conversion factor for cover material in Table 2-2.

Table 2-3 Cover material used at Owenga Landfill over FY 22/23.

| Date | Glass | Soil |
|---|---------------------|---------------------|
| July 22 | 14 | 0 |
| August 22 | 0 | 0 |
| September 22 | 8 | 0 |
| October 22 | 4 | 0 |
| November 22 | 6 | 0 |
| December 22 | 0 | 0 |
| January 23 | No record available | |
| February 23 | 16 | 3 |
| March 23 | 16 | 0 |
| April 23 | 40 | 10 |
| May 23 | 8 | 16 |
| June 23 | 6 | 6 |
| Total volume | 118 m ³ | 35 m ³ |
| Total quantity of cover material | 52.86 tonnes | 15.68 tonnes |



2.4 Estimates of Landfill Compaction Density Achieved

In accordance with conditions 13 and 14 of the 'Specific Conditions to Discharge Solid Waste onto Land' contained within the discharge permit, surveys are to be conducted annually to determine the in-situ volume of material that has been deposited at the landfill. The annual survey should include the height and shape of the landfill.

The landfill operator missed the opportunity to get the landfill survey completed for the reporting period as their surveyors were not available. Fulton Hogan have an estimated volume of the waste in the cell. This will be confirmed in June 2024 with a proper topographical survey.

2.5 Records of Any Landfill Development Undertaken During the Previous Year

No development has been undertaken at the landfill during the reporting period. Figure 2-1 and Figure 2-2 show the landfill in July 2022 and July 2023 respectively.



Figure 2-1 Owenga Landfill July 2022.



Figure 2-2 Owenga Landfill July 2023.

3 Environmental Monitoring

In accordance with condition 26 of the 'Specific Conditions to Discharge Solid Waste onto Land' contained within the discharge permit a leachate, groundwater and surface water monitoring programme must be specified in the Owenga Landfill Development and Management Plan (*the LDMP*). This should include sampling locations, frequency, and parameters for analysis. The programme shall include but not be limited to:

- (a) Monthly records of leachate levels above the liner. The monitoring locations shall be selected to coincide, as far as practicable, with the areas of maximum predicted leachate level. The method shall be capable of providing long-term monitoring of leachate levels.
- (b) Weekly record of quantity of leachate that remains in storage in the leachate pond, and an estimate of the amount of leachate treated, the amount of leachate disposed to land and the amount removed from site by tanker.
- (c) Leachate quality (parameters, sampling locations and frequency).
- (d) Subsoil drain contamination by leachate (monitoring locations, parameters, frequency/timing).
- (e) Groundwater contamination by leachate (monitoring locations, parameters, frequency/timing).
- (f) Surface water contamination by leachate (monitoring type and location, flow, parameters, frequency/timing and trigger levels for non-compliance).

The LDMP prepared in October 2015 includes an environmental monitoring of groundwater, surface water and leachate programme within Appendix F. The annual monitoring report has assessed the environment monitoring compliance against the LDMP.



3.1 Interim Target Values

In accordance with condition 27 of the 'Specific Conditions to Discharge Solid Waste onto Land' contained within the discharge permit, prior to accepting waste to the landfill at least three baseline monitoring rounds shall be undertaken at the groundwater and surface water monitoring sites identified in the LDMP to establish interim groundwater and surface water receiving environment trigger levels.

Baseline monitoring was undertaken at four surface water sites and one groundwater site between June 2013 and December 2021 to set Interim Trigger Values (*ITVs*). It was considered that the monitoring results collected were sufficient to characterise baseline water quality. The ITVs were reviewed in December 2022 and are given in Table 3-1. The same ITVs were proposed for groundwater and surface water.

Table 3-1: Interim trigger values.

| Parameter | Interim Trigger Value (reviewed 2022) |
|---|---------------------------------------|
| Conductivity (mS/m) | <23 |
| Ammoniacal Nitrogen (g/m ³) | <0.05 |
| Chloride (g/m ³) | <55 |
| Dissolved Zinc (g/m ³) | <0.004 |

The ITVs are intended for use initially at the first of three levels described below. The first level involves identification of the presence of leachate in receiving water bodies (surface water and groundwater) downstream/downgradient of the landfill. If an ongoing issue becomes evident, it is anticipated that subsequent levels of management will be implemented.

| | |
|--|--|
| Level 1: Identification | ITVs are exceeded. It is determined whether the exceedances are due to leachate. |
| Level 2: Investigation and mitigation | Further investigation (usually, additional monitoring) is undertaken to confirm why leachate is entering receiving water bodies and implement actions to mitigate any associated adverse effects on surface water or groundwater quality. This is typically a proactive approach to manage issues early, before any large scale or irreversible effects occur. |
| Level 3: Remediation | ITVs continue to be exceeded on a regular basis (i.e., every one or two monitoring events, and/or in both surface water and groundwater). Adverse effects have been identified because of leachate entering receiving water bodies. Immediate action is required to mitigate these effects and avoid ongoing effects. |

The ITVs are to be reviewed on a 5 yearly basis, or at major changes in the development of the landfill to ensure that they remain appropriate. The next review is due in 2027.

3.2 Environmental Monitoring Locations and Requirements

Environmental monitoring of groundwater, surface water and leachate is undertaken in accordance with the requirements of the LDMP.

Environment Canterbury (*ECan*) field staff have historically undertaken baseline monitoring on behalf of CIC in accordance with best practice. The testing of samples is carried out in an IANZ accredited laboratory and sample results are to be forwarded to the CIC within a week of their availability. If the concentrations of the chemical parameters change by a significant amount, or show trends of changing concentration, then additional monitoring may be recommended for a more comprehensive suite of parameters.



3.2.1 Groundwater Monitoring

There are ten groundwater monitoring locations. They are labelled as monitoring locations G1, G2, G3, G4, G5, G6, and G8 (composite) in Figure 3-1. G7 will be established when the sludge lagoons are constructed, but it is presently not an active monitoring location.



Figure 3-1 Groundwater monitoring locations.

Two groundwater monitoring locations were established for the baseline monitoring. They are labelled as monitoring locations G1 and G2. The additional groundwater monitoring locations were installed for operational monitoring.

G3 and G4 are open drains carrying groundwater. G5 and G6 are groundwater monitoring wells. G7 (presently not active) is the outlet of a proposed central subsoil drain that will be located under the sludge lagoons. G8 is a composite sample taken from four shallow monitoring ports G8(a) to G8(d) within the treated leachate application area.

Groundwater collection point, G3 is located hydraulically up-gradient of the active landfill stages at the upper end of the open drain that has been constructed as part of the landfill development. Sampling at this location provides data on the quality of groundwater up-gradient of the landfill site.

Groundwater collection point, G4 is downgradient of the landfill and water samples collected from the open drain are monitored quarterly for indicators prevalent in leachate.

G5 and G6 are groundwater monitoring wells downgradient of respectively the leachate land application area and the leachate pond overflow land application area.

Additionally, four shallow monitoring points (G8a, G8b, G8c and G8d) have been constructed within the treated leachate application area. G8 is a composite sample from these four monitoring points. Table 3-2 provides coordinates for each of the monitoring locations, locations of G3 to G8 in Figure 3-1 are estimated only and their coordinates should be confirmed during the next topographical survey and Table 3-2 updated.

Table 3-2 Groundwater monitoring locations.

| Monitoring point ID | Location | Chatham Islands Transverse Mercator 2000 | |
|--|---|--|----------|
| | | Easting | Northing |
| G1 | At lowest point of the depression (peat burn hole) | 3506868 | 5125107 |
| G2 [#] | At daylighting of underground stream. - approximately 400 metres downgradient of the landfill. | 3507213 | 5125338 |
| G3 [#] for Stages 1 to 8 | At the head of the open drain hydraulically upgradient of the landfill. | 3506835 | 5124901 |
| G4 [#] | At subsoil the drain outlet in the open drain immediately hydraulically downgradient of the landfill. | 3506871 | 5125079 |
| G5 [#] | Down-gradient of the leachate land application area | 3507070 | 5125068 |
| G6 [#] | Down-gradient of the leachate pond overflow land application area | 3506994 | 5125014 |
| G7 [#] | To be established down-gradient of the sludge lagoons, when they are constructed | 3506920 | 5125002 |
| G8 [#] (composite of 8(a), G8(b), G8(c) and G8(d)) | Spread evenly throughout the treated leachate application area. | 3507039 | 5125044 |

Location estimated from the LDMP maps and descriptions, coordinates to be confirmed during next survey

Groundwater monitoring at G1 and G2 was carried out prior to operations starting at the landfill. Groundwater monitoring at G1, G3, G4, G5, G6 and G8(composite) is to be undertaken biannually and tested for the following:

- pH
- conductivity
- alkalinity
- chloride
- ammoniacal nitrogen
- nitrate nitrogen, or total nitrogen
- total organic carbon
- soluble zinc
- suspended solids.

Also bi-annually, but off-set by a quarter, is the following groundwater monitoring at G4 to be tested for the following chemical parameters and characteristics:

- pH
- conductivity
- chloride
- ammoniacal nitrogen.

Bi-annual monitoring at G3, G4, G5, G6 and G8(a) to G8(d) is to be undertaken in August/September and February/March after operations commence at the landfill. Additional monitoring at G4 is to occur in the months of November/December and May/June.

During the reporting period samples were taken from G1, G3, G4, G5, G8 in September 22 and March 23 and only on the 27 March 2023 from G6. Additional quarterly samples were taken from G1 in December 22 and June 23 but not for G4 as required by the discharge permit. No monitoring results were provided for G2 and no field records available for inclusion in this report. Anecdotally, G2 has been difficult to located, being the source of a spring from an underground "tomo". Efforts should be made in the next monitoring period to locate G2 and set up regular monitoring there. The results of the monitoring are provided in Section 3.3.



3.2.2 Surface Water Monitoring

There are four surface water monitoring locations. They are labelled as monitoring locations S1, S2, S3 and S4 in Figure 3-2.



Figure 3-2 Surface water monitoring locations.

Surface water monitoring is to be undertaken bi-annually in August / September and Feb/March. Surface water monitoring at S1, S2, S3 and S4 is analysed for the following:

- pH
- conductivity
- alkalinity
- chloride
- ammoniacal nitrogen
- nitrate nitrogen, or total nitrogen
- total organic carbon
- soluble zinc
- suspended solids.

Table 3-2 provides the description and coordinates for each of the monitoring locations.

Table 3-3 Surface water monitoring locations.

| Monitoring point ID | Location | Chatham Islands Transverse Mercator 2000 | |
|---------------------|--|--|----------|
| | | Easting | Northing |
| S1 | Up-gradient of landfill site on the Kahiti Stream | 3506968 | 5124470 |
| S2 | Up-gradient of landfill site on an un-named stream | 3506273 | 5124905 |
| S3 | Down-gradient of landfill site on the Kahiti Stream | 3507738 | 5125640 |
| S4 | Down-gradient of landfill site on an un-named stream | 3507098 | 5126260 |

During the reporting period, quarterly samples were taken from S1, S2, S3, and S4 in September 22, December 22, March 23 and June 23. This is over and above what is required by the LDMP. The results of this monitoring are provided in Section 3.3.

3.2.3 Leachate Monitoring

Condition 6 deals specifically with the discharge of stormwater, supernatant, and treated leachate onto land:

“The Consent Holder shall operate and maintain a leachate, supernatant and contaminated stormwater collection, management, treatment and disposal system within the landfill site as necessary to ensure leachate and stormwater that has come into contact with waste are collected and treated to a standard that avoids more than minor adverse effects on the down gradient groundwater and the downstream surface water environment.”

A trial Leachate Treatment Plant (**LTP**) has been constructed as part of the landfill infrastructure. This facility (Figure 3-3) is required to treat leachate collected from the landfill.



Figure 3-3: Completed leachate treatment plant.

The treated leachate gravitates to the application area which is nominally 100m long by 50m wide. A perforated pipe is located on the surface along the contour at the top of the application area. Once disposal of leachate commences this pipe is to be moved approximately 5 metres downslope each fortnight so that the treated leachate can be spread evenly over the full extent of the application area. After 22 weeks it should have been moved progressively to the bottom of the slope, and thereafter it should be taken to the top and the cycle repeated.

Figure 3-4 shows the top end of the treated leachate application area. A strip has been created on the contour by mulching the vegetation. Vegetation is to be mulched across the rest of the application area to facilitate moving the perforated application pipe periodically.



Figure 3-4: Top of the application area. The perforated pipe needs to be made as level as possible.

Condition 18 of the special conditions to discharge stormwater and treated leachate onto land within the discharge permit requires that the leachate treatment system is monitored over a period of two years and its adequacy in treating leachate is to be evaluated during that period. Thereafter, decisions will be made to modify or continue with the LTP, as appropriate.

There are three leachate monitoring locations. They are labelled as monitoring locations L1, L2, and L3 in Figure 3-5.



Figure 3-5 Leachate monitoring locations.

The locations of L1 to L3 in Figure 3-5 are estimated only and their coordinates should be confirmed during the next topographical survey and Table 3-4 updated. Table 3-4 provides the description and coordinates for each of the monitoring locations.

Table 3-4 Leachate monitoring locations.

| Monitoring point ID | Location Description | Chatham Islands Transverse Mercator 2000 | |
|---------------------|---|--|----------|
| | | Easting | Northing |
| L1 [#] | Located at the inlet pipe leading into the leachate pond. | 3506885 | 5125042 |
| L2 [#] | Located at the outlet of the leachate pond. | 3506907 | 5125078 |
| L3 [#] | Located at the sump down-gradient of the treatment plant. | 3506911 | 5125099 |

Location estimated from the LDMP maps and descriptions, coordinates to be confirmed during next survey

Given the small size of the landfill and sludge lagoons, it is considered that all monitoring be undertaken quarterly at L1 to L3 in November/December, August/September, February/March and May/June. The LDMP notes that from a sampling protocol perspective it is expected that the extent of contamination will be L1 > L2 > L3, and therefore samples should be taken in the order of L3, L2 and then L1. The samples are to be analysed for the following reduced number of physico-chemical parameters:

- flow rate (bucket and stopwatch at L1 and L3)
- pH
- conductivity
- chloride
- ammoniacal nitrogen
- chemical oxygen demand
- soluble iron
- soluble boron
- soluble lead
- suspended solids.

During the reporting period samples were taken from L1 and L3, in September 22, and March 23 and from L2 only in September 2022. This is less than the quarterly monitoring required by the LDMP. The results of this monitoring are provided in Section 3.3.

To check that inappropriate wastes have not been placed within the landfill, the untreated leachate is to be sampled and analysed at screening level at monitoring point L1 every three years for additional parameters this is due June 2025.

3.3 Results of All Environmental and Landfill Operation Monitoring Undertaken During the Year

The following tables provide the results of the environmental monitoring undertaken during the reporting period. Field sheets, photographs and laboratory reports were not available for review. Laboratory data was provided as csv files, but the original laboratory reports have not been provided to Stantec for inclusion in this report. Results that exceed the revised ITVs recommended for groundwater and surface water within the Owenga Landfill Environmental Monitoring – Review of Interim Trigger Values December 2022 are highlighted in red. Results that are below the levels of detection provided by testing at the laboratory are shown in *italics*.



3.3.1 Groundwater Monitoring Results

Table 3-5 Water quality data from sampling events at groundwater monitoring site G1 from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Clarity (cm) | Conductivity (mS/m) | Conductivity (Field) (mS/m) | DO (mg/L) | DO (%) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Nitrite Nitrogen (mg/L) | Salinity (Field) (ppt) | Total Organic Carbon (mg/L) | TSS (mg/L) | Temperature (°C) | Zinc, Dissolved (mg/L) | pH |
|---------------|--|----------------------------|-----------------|--------------|---------------------|-----------------------------|-----------|--------|-------------------------|---|-------------------------|------------------------|-----------------------------|------------|------------------|------------------------|-----|
| Trigger Value | | 0.05 | 55 | | 23 | | | | | | | | | | | 0.004 | |
| 16-09-22 | 1.9 | 0.01 | 55 | | 21.8 | 23.71 | 9.91 | 92.7 | 0.002 | <0.002 | <0.002 | 0.1 | 20 | 60 | 12 | 0.003 | 5.2 |
| 12-12-22 | 3.3 | <0.01 | 51 | 28.5 | 22.8 | 19.62 | 5.58 | 57 | <0.002 | <0.002 | <0.002 | 0.1 | 12 | 13 | 15.8 | 0.002 | 5.9 |
| 24-03-23 | 3.3 | <0.01 | 52 | >100 | 22.8 | 9.65 | 6.51 | 74.1 | <0.002 | <0.002 | <0.002 | 0.1 | 10.3 | 8 | 15.7 | 0.001 | 5.6 |
| 19-06-23 | 3.9 | <0.01 | 50 | 100 | 23.2 | 16.26 | 6.08 | 51.8 | <0.002 | <0.002 | <0.002 | 0.1 | 7.5 | <3 | 10.2 | 0.005 | 6 |

Table 3-6 Water quality data from sampling events at groundwater monitoring site G3 (hydraulically upgradient of the landfill) from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Conductivity (mS/m) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Total Organic Carbon (mg/L) | TSS (mg/L) | Zinc, Dissolved (mg/L) | pH |
|----------|--|----------------------------|-----------------|---------------------|-------------------------|---|-----------------------------|------------|------------------------|-----|
| 16-09-22 | 2 | <0.01 | 51 | 29.6 | <0.002 | <0.002 | 1.8 | 6 | 0.003 | 5.8 |
| 23-03-23 | 3 | <0.01 | 52 | 22.2 | <0.002 | <0.002 | 2.4 | <3 | 0.003 | 6 |

Table 3-7 Water quality data from sampling events at groundwater monitoring site G4 from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Conductivity (mS/m) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Nitrite Nitrogen (mg/L) | Total Organic Carbon (mg/L) | TSS (mg/L) | Zinc, Dissolved (mg/L) | pH |
|----------|--|----------------------------|-----------------|---------------------|-------------------------|---|-------------------------|-----------------------------|------------|------------------------|-----|
| 16-09-22 | 9 | 0.168 | 54 | 24.2 | 0.037 | 0.037 | <0.002 | 6.7 | 6 | 0.001 | 5.6 |
| 27-03-23 | 7 | 0.187 | 52 | 23.3 | <0.002 | 0.005 | 0.003 | 9.4 | 4 | <0.001 | 5.3 |

Table 3-8 Water quality data from sampling events at groundwater monitoring site G5 from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Conductivity (mS/m) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Nitrite Nitrogen (mg/L) | Total Organic Carbon (mg/L) | TSS (mg/L) | Zinc, Dissolved (mg/L) | pH |
|----------|--|----------------------------|-----------------|---------------------|-------------------------|---|-------------------------|-----------------------------|------------|------------------------|-----|
| 01-03-22 | 1.9 | 0.041 | 35 | 29 | <0.002 | <0.002 | <0.002 | 15.9 | 4 | 0.012 | 4.8 |
| 16-09-22 | <1.0 | 0.069 | 75 | 31.6 | <0.002 | <0.002 | <0.002 | 8.6 | 14 | 0.006 | 4.5 |
| 27-03-23 | <1.0 | 0.108 | 74 | 14.5 | <0.002 | <0.002 | <0.002 | 13.2 | 4 | 0.011 | 4.6 |

Table 3-9 Water quality data from sampling events at groundwater monitoring site G6 from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Conductivity (mS/m) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Nitrite Nitrogen (mg/L) | Total Organic Carbon (mg/L) | TSS (mg/L) | Zinc, Dissolved (mg/L) | pH |
|----------|--|----------------------------|-----------------|---------------------|-------------------------|---|-------------------------|-----------------------------|------------|------------------------|-----|
| 01-03-22 | 1.2 | <0.01 | 65 | 26.5 | 0.023 | 0.034 | 0.011 | 59 | 5 | 0.014 | 4.6 |
| 27-03-23 | <1.0 | 0.134 | 71 | 29.8 | 0.98 | 0.99 | 0.008 | 77 | 57 | 0.019 | 4.2 |

Table 3-10 Water quality data from sampling events at groundwater monitoring site G8 (composite from leachate application area) from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Conductivity (mS/m) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Nitrite Nitrogen (mg/L) | Total Organic Carbon (mg/L) | TSS (mg/L) | Zinc, Dissolved (mg/L) | pH |
|----------|--|----------------------------|-----------------|---------------------|-------------------------|---|-------------------------|-----------------------------|------------|------------------------|-----|
| 16-09-22 | <2.0 | <0.01 | 29 | 12.5 | <0.002 | <0.002 | <0.020 | 122 | 370 | 0.008 | 4.5 |
| 27-03-23 | <1.0 | 0.015 | 73 | 38.4 | <0.002 | <0.002 | <0.020 | 172 | 300 | 0.017 | 4.2 |

3.3.2 Surface Water Monitoring Results

Table 3-11 Water quality data from sampling events at surface water monitoring site S1 (upgradient of the landfill) from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Clarity (cm) | Conductivity (mS/m) | Conductivity (Field) (mS/m) | DO (mg/L) | DO (%) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Nitrite Nitrogen (mg/L) | Salinity (Field) (ppt) | Total Organic Carbon (mg/L) | TSS (mg/L) | Temperature (°C) | Zinc, Dissolved (mg/L) | pH |
|----------|--|----------------------------|-----------------|--------------|---------------------|-----------------------------|-----------|--------|-------------------------|---|-------------------------|------------------------|-----------------------------|------------|------------------|------------------------|-----|
| 16-09-22 | 5.4 | <0.01 | 44 | 46 | 18.3 | 18.38 | 9.85 | 86.3 | <0.020 | <0.020 | <0.020 | 0.1 | 27 | 18 | 8.5 | 0.005 | 6.2 |
| 12-12-22 | 4 | <0.1 | 42 | 16.5 | 17.8 | 14.1 | 9.38 | 90.1 | <0.020 | 0.02 | 0.02 | 0.1 | 41 | <3.0 | 14.3 | 0.002 | 5.3 |
| 24-03-23 | 2.5 | 0.022 | 40 | 21.5 | 17.1 | 13.77 | 9.92 | 97.4 | <0.1 | <0.1 | <0.1 | 0.1 | 57 | 10 | 14.3 | 0.002 | 4.8 |
| 19-06-23 | 4.1 | <0.1 | 38 | 12 | 16.1 | 11.29 | 11.02 | 97.5 | <0.1 | <0.1 | <0.1 | 0.1 | 57 | 4 | 10.1 | 0.002 | 5.2 |

Table 3-12 Water quality data from sampling events at surface water monitoring site S2 (upgradient of the landfill) from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Clarity (cm) | Conductivity (mS/m) | Conductivity (Field) (mS/m) | DO (mg/L) | DO (%) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Nitrite Nitrogen (mg/L) | Salinity (Field) (ppt) | Total Organic Carbon (mg/L) | TSS (mg/L) | Temperature (°C) | Zinc, Dissolved (mg/L) | pH |
|----------|--|----------------------------|-----------------|--------------|---------------------|-----------------------------|-----------|--------|-------------------------|---|-------------------------|------------------------|-----------------------------|------------|------------------|------------------------|-----|
| 16-09-22 | 6.3 | <0.01 | 39 | 47.5 | 14.5 | 20.01 | 9.81 | 84.8 | <0.02 | <0.02 | <0.02 | 0.1 | 25 | 14 | 8.9 | 0.001 | 6.6 |
| 12-12-22 | 4.9 | 0.017 | 46 | 18 | 18.9 | 15.46 | 9.35 | 92.5 | <0.02 | <0.02 | <0.02 | 0.1 | 37 | 3 | 14.9 | 0.001 | 5.6 |
| 24-03-23 | 3 | 0.017 | 43 | 16 | 18.8 | 15.36 | 9.09 | 90.1 | <0.02 | <0.02 | <0.02 | 0.1 | 53 | 11 | 14.6 | <0.001 | 4.9 |
| 19-06-23 | 4 | <0.1 | 40 | 16 | 17.2 | 12.35 | 10.8 | 98.1 | <0.1 | <0.1 | <0.1 | 0.1 | 50 | 3 | 10.2 | 0.001 | 5.2 |

Table 3-13 Water quality data from sampling events at surface water monitoring site S3 from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Clarity (cm) | Conductivity (mS/m) | Conductivity (Field) (mS/m) | DO (mg/L) | DO (%) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Nitrite Nitrogen (mg/L) | Salinity (Field) (ppt) | Total Organic Carbon (mg/L) | TSS (mg/L) | Temperature (°C) | Zinc, Dissolved (mg/L) | pH |
|----------|--|----------------------------|-----------------|--------------|---------------------|-----------------------------|-----------|--------|-------------------------|---|-------------------------|------------------------|-----------------------------|------------|------------------|------------------------|-----|
| 16-09-22 | 5.9 | 0.012 | 47 | 46 | 18 | 18.88 | 10.47 | 87.2 | <0.020 | <0.020 | <0.020 | 0.1 | 29 | 13 | 8.4 | <0.001 | 6.4 |
| 12-12-22 | 4.4 | <0.01 | 43 | 18 | 18.2 | 14.38 | 9.18 | 91.1 | <0.020 | <0.020 | 0.02 | 0.1 | 40 | 3 | 14.5 | 0.002 | 5.4 |
| 24-03-23 | 2.4 | 0.019 | 42 | 24.5 | 18.5 | 15.27 | 9.94 | 97.6 | <0.020 | <0.020 | <0.020 | 0.1 | 53 | 9 | 14.6 | <0.001 | 4.8 |
| 19-06-23 | 4.8 | <0.1 | 36 | 20 | 16 | 11.51 | 10.48 | 95.2 | <0.1 | <0.1 | <0.1 | 0.1 | 63 | 3 | 9.9 | 0.002 | 5.3 |

Table 3-14 Water quality data from sampling events at surface water monitoring site S4 from 1 July 2022 to 30 June 2023.

| Date | Alkalinity, Total (g/m ³ as CaCO ₃) | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Clarity (cm) | Conductivity (mS/m) | Conductivity (Field) (mS/m) | DO (mg/L) | DO (%) | Nitrate Nitrogen (mg/L) | Nitrate-N Nitrite-N (g/m ³) | Nitrite Nitrogen (mg/L) | Salinity (Field) (ppt) | Total Organic Carbon (mg/L) | TSS (mg/L) | Temperature (°C) | Zinc, Dissolved (mg/L) | pH |
|----------|--|----------------------------|-----------------|--------------|---------------------|-----------------------------|-----------|--------|-------------------------|---|-------------------------|------------------------|-----------------------------|------------|------------------|------------------------|-----|
| 16-09-22 | 5.9 | 0.014 | 18.2 | 44 | 8.5 | 21.81 | 8.45 | 74.7 | <0.002 | 0.004 | 0.006 | 0.1 | 28 | 27 | 10 | <0.001 | 6.7 |
| 12-12-22 | 7.5 | <0.01 | 47 | 19 | 19.7 | 16.61 | 9.31 | 94.2 | <0.020 | <0.020 | <0.020 | 0.1 | 40 | 8 | 16.1 | 0.001 | 6.3 |
| 24-03-23 | 4.5 | 0.016 | 47 | 18 | 20.5 | 16.69 | 8.37 | 83.6 | <0.020 | <0.020 | <0.020 | 0.1 | 49 | 13 | 15.1 | 0.002 | 5.2 |
| 19-06-23 | 5.5 | <0.01 | 42 | 12 | 17.8 | 12.58 | 11.62 | 103.6 | <0.1 | <0.1 | <0.1 | 0.1 | 55 | <3 | 10.2 | 0.002 | 5.6 |

3.3.3 Leachate Monitoring Results

Table 3-15 Water quality data from sampling events at leachate monitoring site L1 (inlet to leachate pond) from 1 July 2022 to 30 June 2023.

| Date | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Conductivity (mS/m) | TSS (mg/L) | pH | Chemical Oxygen Demand (g O ₂ /m ³) | Soluble Iron (mg/L) | Soluble Boron (mg/L) | Soluble Lead (mg/L) |
|----------|----------------------------|-----------------|---------------------|------------|-----|--|---------------------|----------------------|---------------------|
| 16-09-22 | 0.011 | 34 | 31 | 14 | 8.1 | 16 | <0.100 | 0.04 | <0.0005 |
| 27-03-23 | 0.027 | 32 | 38.2 | <3 | 7.9 | 21 | <0.100 | 0.09 | <0.0005 |

Table 3-16 Water quality data from sampling events at leachate monitoring site L2 (outlet of leachate pond) from 1 July 2022 to 30 June 2023.

| Date | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Conductivity (mS/m) | TSS (mg/L) | pH | Chemical Oxygen Demand (g O ₂ /m ³) | Soluble Iron (mg/L) | Soluble Boron (mg/L) | Soluble Lead (mg/L) |
|----------|----------------------------|-----------------|---------------------|------------|-----|--|---------------------|----------------------|---------------------|
| 16-09-22 | 0.014 | 68 | 32.9 | 12 | 8.1 | 18 | <0.02 | 0.019 | 0.0003 |

Table 3-17 Water quality data from sampling events at leachate monitoring site L3 (downgradient of treatment plant) from 1 July 2022 to 30 June 2023.

| Date | Ammoniacal Nitrogen (mg/L) | Chloride (mg/L) | Conductivity (mS/m) | TSS (mg/L) | pH | Chemical Oxygen Demand (g O ₂ /m ³) | Soluble Iron (mg/L) | Soluble Boron (mg/L) | Soluble Lead (mg/L) |
|----------|----------------------------|-----------------|---------------------|------------|-----|--|---------------------|----------------------|---------------------|
| 16-09-22 | <0.01 | 42 | 26.5 | <3 | 7.7 | 22 | <0.100 | 0.03 | <0.0005 |
| 27-03-23 | <0.01 | 49 | 38.6 | <3 | 7.5 | 23 | <0.100 | 0.09 | <0.0005 |

3.4 Interpretation of the Results, in the Context of the Previous Results

3.4.1 Dissolved Oxygen

The National Policy Statement for Freshwater Management (NPS-FM) national bottom line for dissolved oxygen is 4 mg/L (lowest 1-day minimum across whole summer period) or 5 mg/L (7-day mean minimum). The dataset does not provide a large enough sample size (due to the frequency of sampling) to calculate robust statistics in line with the data requirements expressed in Table 7 of the NPS-FM (Dissolved oxygen attribute table). As such, the national bottom-line values have been applied as a minimum, and data analysed in terms of whether they exceeded that minimum at any time.

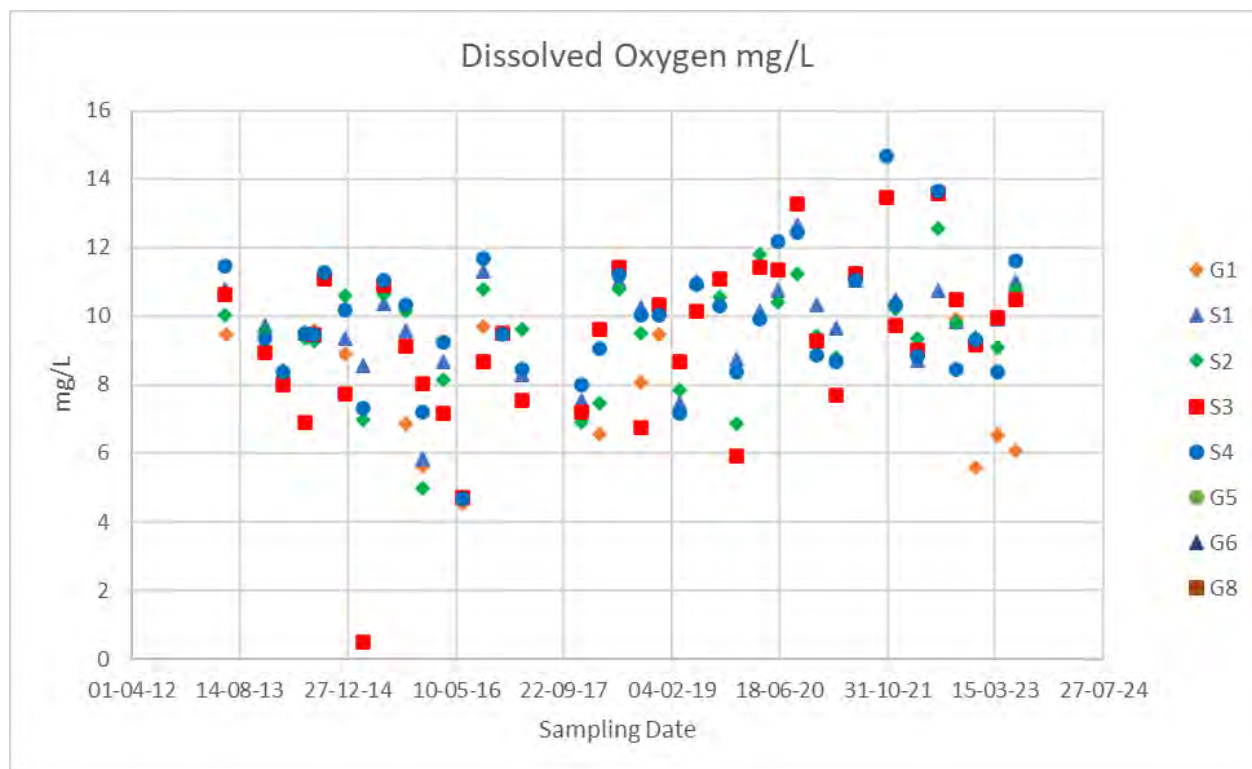


Figure 3-6 Dissolved oxygen concentrations in surface and groundwater sampling results.

Since operations commenced all results recorded were greater than 4 mg/L. An early (i.e., circa 2014) monitoring result for S3 provided a very low value which has not been repeated since. As such, it is regarded as being an anomaly.

Dissolved oxygen concentration can vary considerably over a 24-hour period and especially between day and night; samples were collected during daylight (working) hours. Whilst the presence of leachate can reduce the dissolved oxygen content of water, the determination of dissolved oxygen is subject to considerable variability, and hence an ITV is not set for dissolved oxygen. This parameter continues to be monitored on an ongoing basis for information purposes in both surface water and groundwater.

3.4.2 Electrical Conductivity (EC)

EC was reasonably consistent within each site and particularly across the surface water sites on most occasions (Figure 3-7). Surface water that is impacted by leachate would be expected to have a considerably higher EC and often the upgradient samples (i.e., S1 and S2) exceed the concentration in the surface water bodies below the landfill (i.e., S3 and S4).

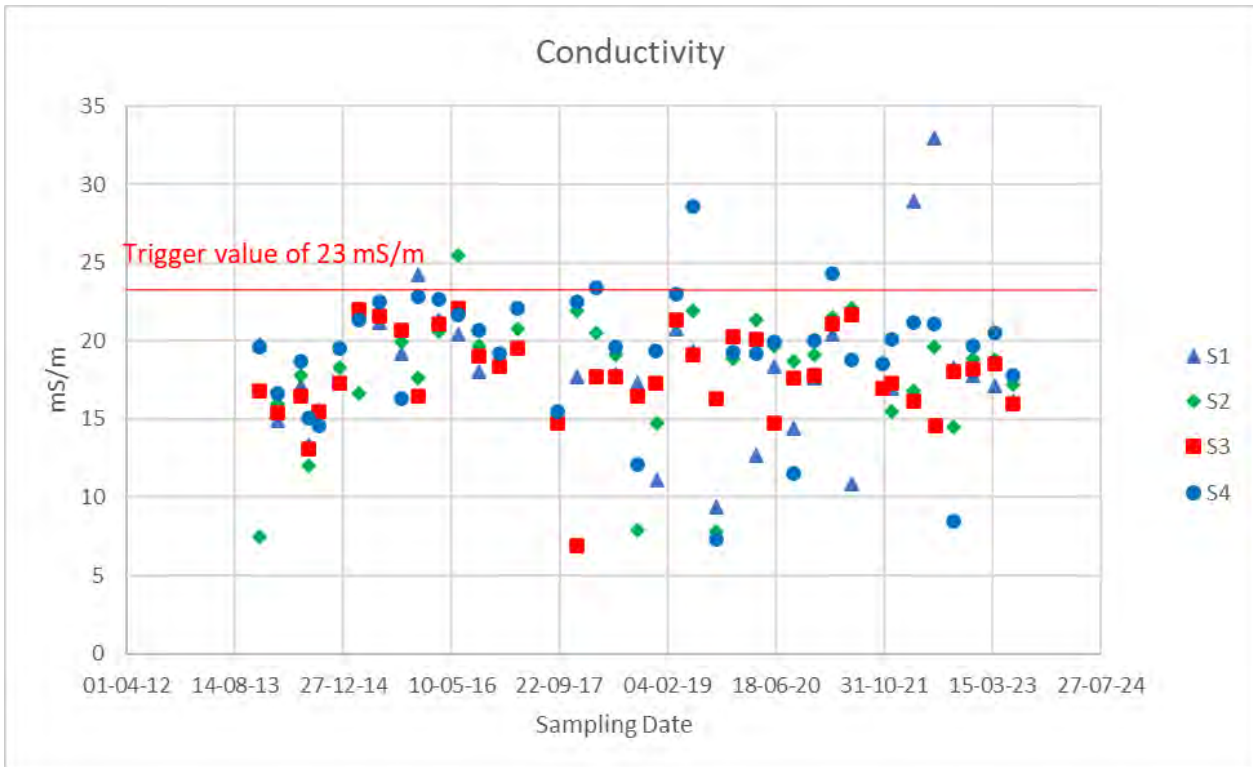


Figure 3-7 Conductivity concentrations in surface water sampling results.

EC can vary considerably between groundwater bores, particularly if deeper groundwater is being sampled. Therefore, exceedances of ITV at G3 and G4 may be influenced by external factors (i.e., background water quality) and not directly caused by the presence of leachate. EC in groundwater bores G6 and G8 showed elevated conductivity levels consistent with the leachate monitoring results. These monitoring points are located within the leachate application area.

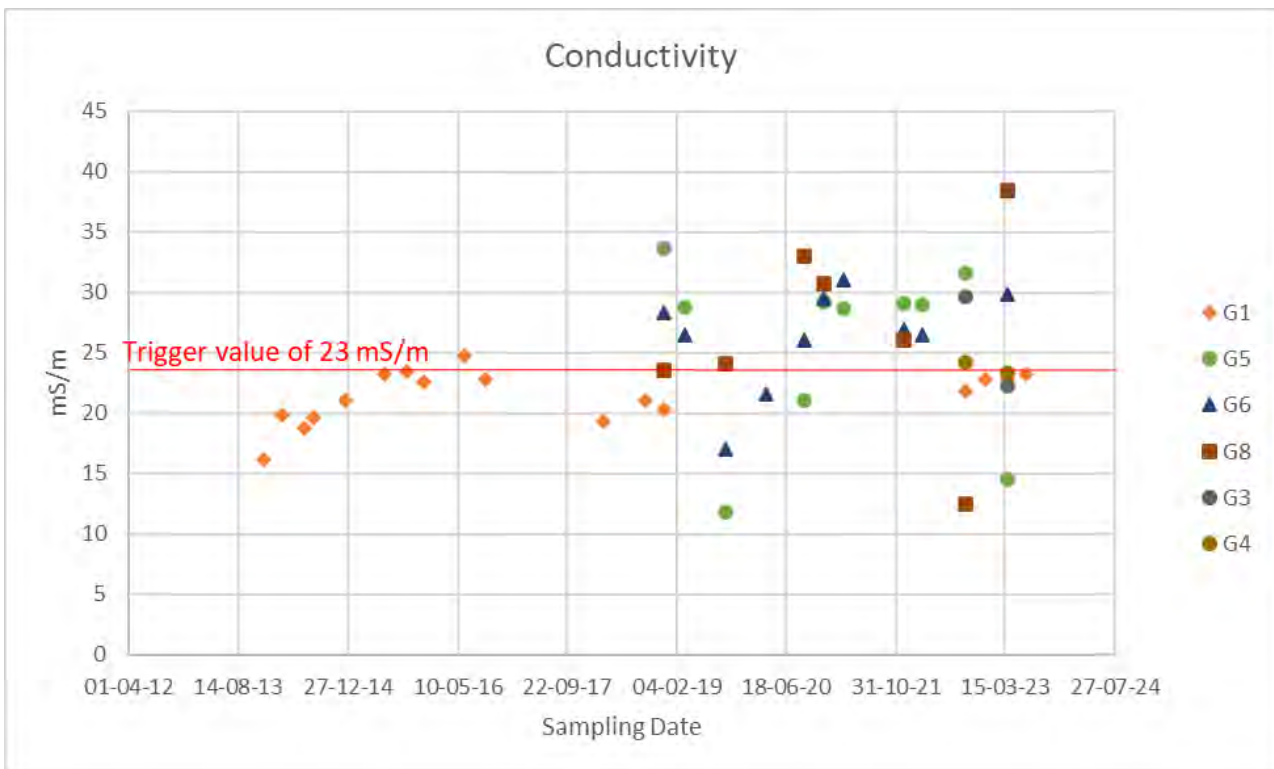


Figure 3-8 Conductivity concentrations in groundwater sampling results.



Conductivity concentrations within the leachate monitoring results for the reporting period ranged from 26.5 – 38.6 mS/m.

3.4.3 Total Suspended Solids (TSS)

TSS concentrations have historically varied across the monitoring events and locations, as would be expected given the sensitivity of this parameter to sampling technique and inherent variability. TSS results were most variable at surface water site S3, with both the highest and one of the lowest results overall recorded at that location (respectively 53 g/m³ in February 2014, and 3 mg/L in June 2023). TSS is not a specific indicator of the presence of leachate but relates to conditions during sampling and aids the interpretation of monitoring results. Therefore, an ITV for this parameter was not proposed. TSS concentrations in surface water show a general decrease across all sites in this reporting period when compared to previous years as shown in Figure 3-9.

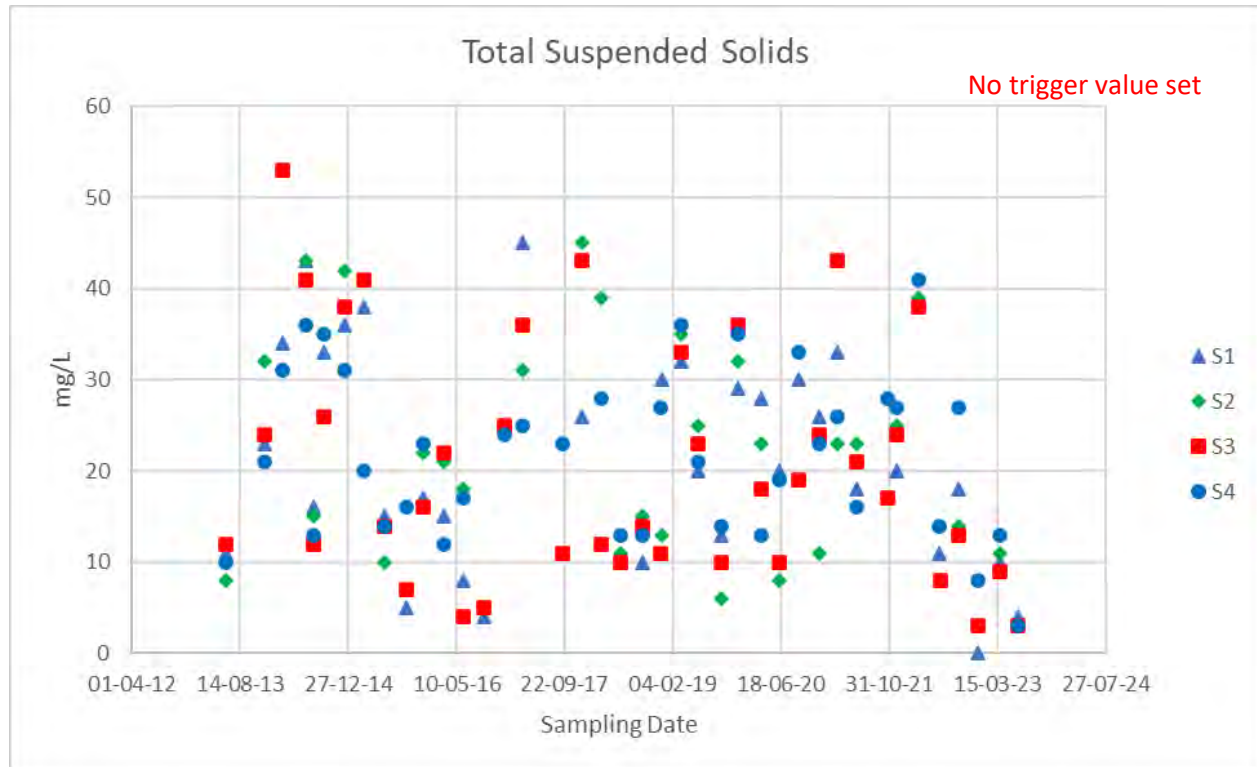


Figure 3-9 TSS concentrations in surface water sampling results.

TSS concentrations in groundwater generally fall within a similar range to surface water concentrations with the exception being G8 which has elevated TSS concentrations.

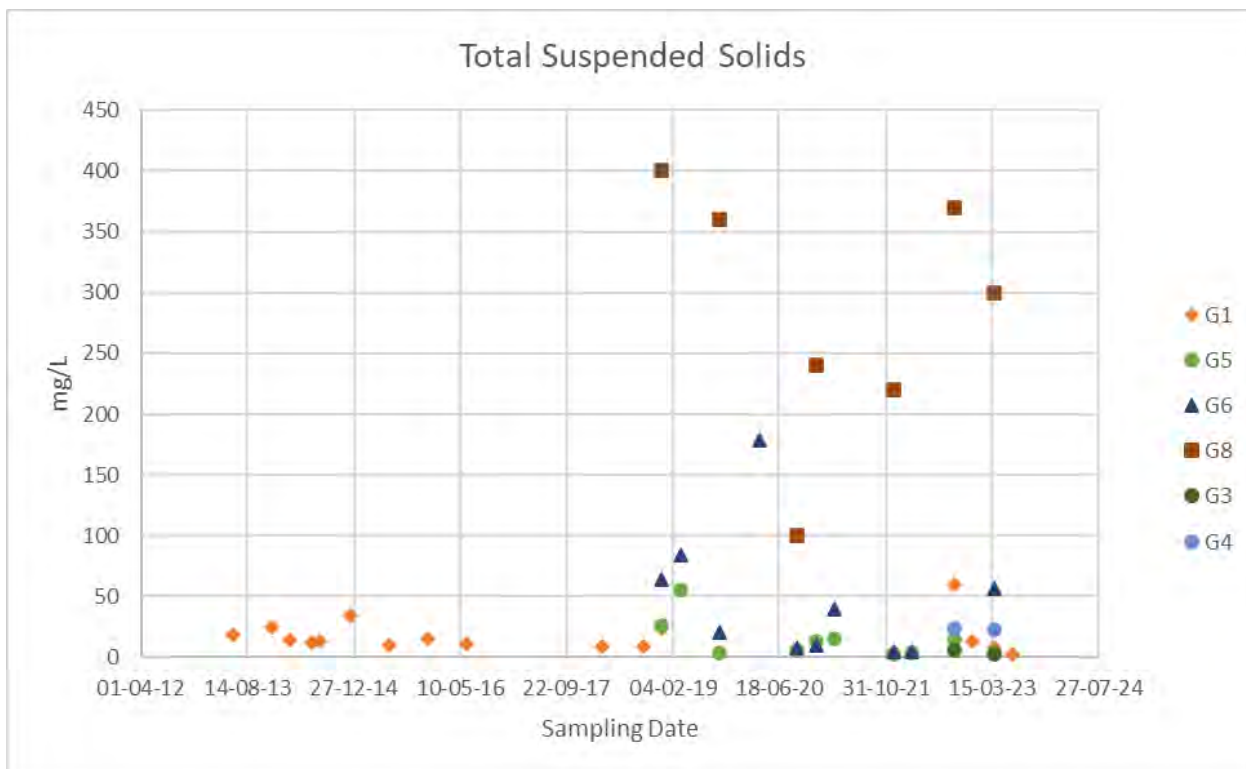


Figure 3-10 TSS concentrations in groundwater sampling results.

Sampling techniques should be reviewed at this location and field photos taken throughout purging and sampling to record any changes observed.

3.4.4 Chloride

Chloride concentrations within the surface water monitoring have historically tended to be highest at location S4 (with the highest result of 59 mg/L recorded at that location in both June 2015 and June 2016), with a small number of exceptions to this trend. The lowest concentration of chloride (16.3 mg/L) was recorded at S2 in December 2013. However, this value was later also recorded at S4 (September 2019 and September 2022) which demonstrates the spatial and temporal variability observed in the dataset. All chloride concentrations within the surface water monitoring results during the reporting period are below the ITV of 55 g/m³.

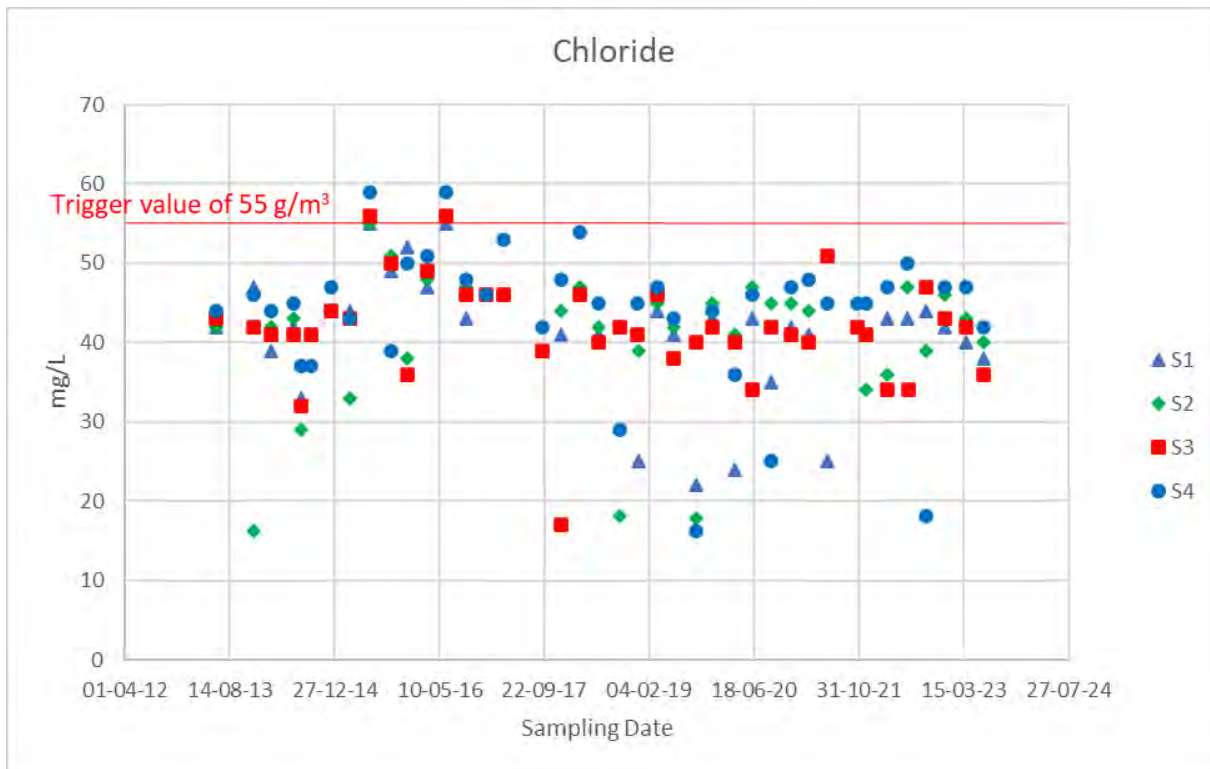


Figure 3-11 Chloride concentrations in surface water sampling results.

As for EC, chloride can vary considerably between monitoring locations (and this can be linked to the variation in EC). Chloride concentrations within the groundwater monitoring samples located in the land application area are generally higher than other surrounding groundwater monitoring locations.

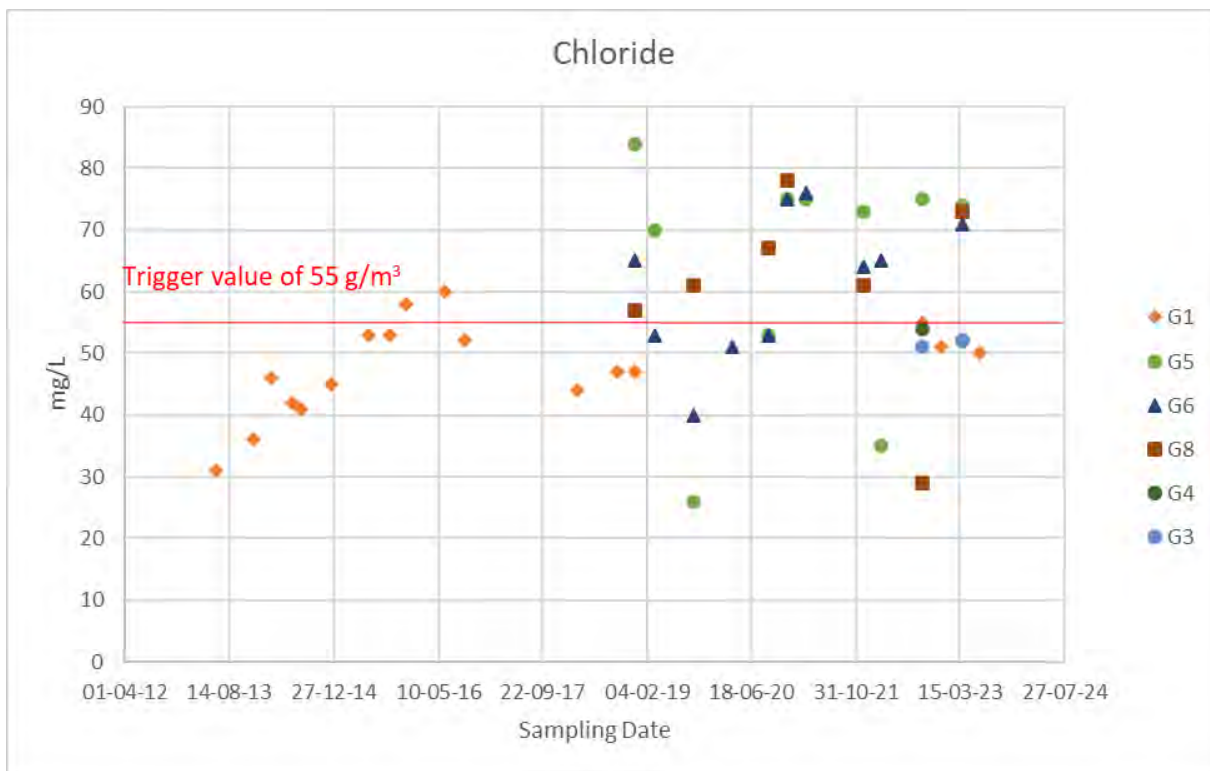


Figure 3-12 Chloride concentrations in groundwater sampling results.

These results are however consistent with monitoring data from 2019 – 2022, prior to any landfill material being accepted at the site and therefore are not likely to be due to landfill leachate.



Chloride concentrations within the leachate monitoring results for the reporting period ranged from 32 – 68 mg/L.

3.4.5 Ammoniacal Nitrogen

The NPS-FM national bottom line for ammonia (toxicity) is an annual 95th percentile of 0.4 mg NH₄-N/L. This has been treated as a maximum, and the available data assessed for any exceedance over that value to infer indicative water quality conditions in the receiving environment. All sites recorded ammoniacal nitrogen concentrations of less than 0.4 mg/L and many were below detection limits.

An ITV of < 0.05 mg/L was proposed. The presence of leachate would be expected to increase ammonia concentrations over this ITV.

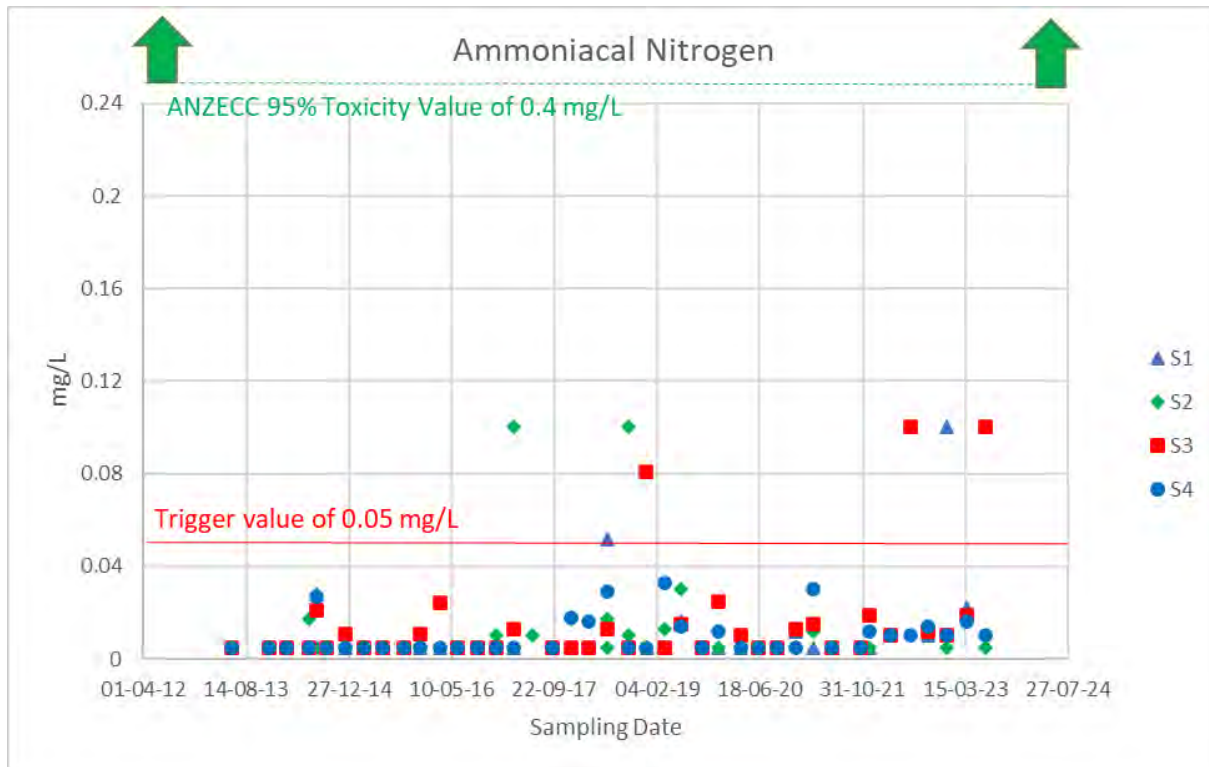


Figure 3-13 Ammoniacal nitrogen concentrations in surface water sampling results.

Historically, the ammoniacal nitrogen concentrations in the surface water monitoring points are generally below the ITV value of 0.05mg/L (Figure 3-13). Ammoniacal nitrogen concentrations with the groundwater downgradient of the landfill exceed the ITV as shown in Figures 3-13. However, these results are consistent with monitoring data 2020 – 2022, prior to any landfill material being accepted at the site and therefore are not likely to be due to landfill leachate.

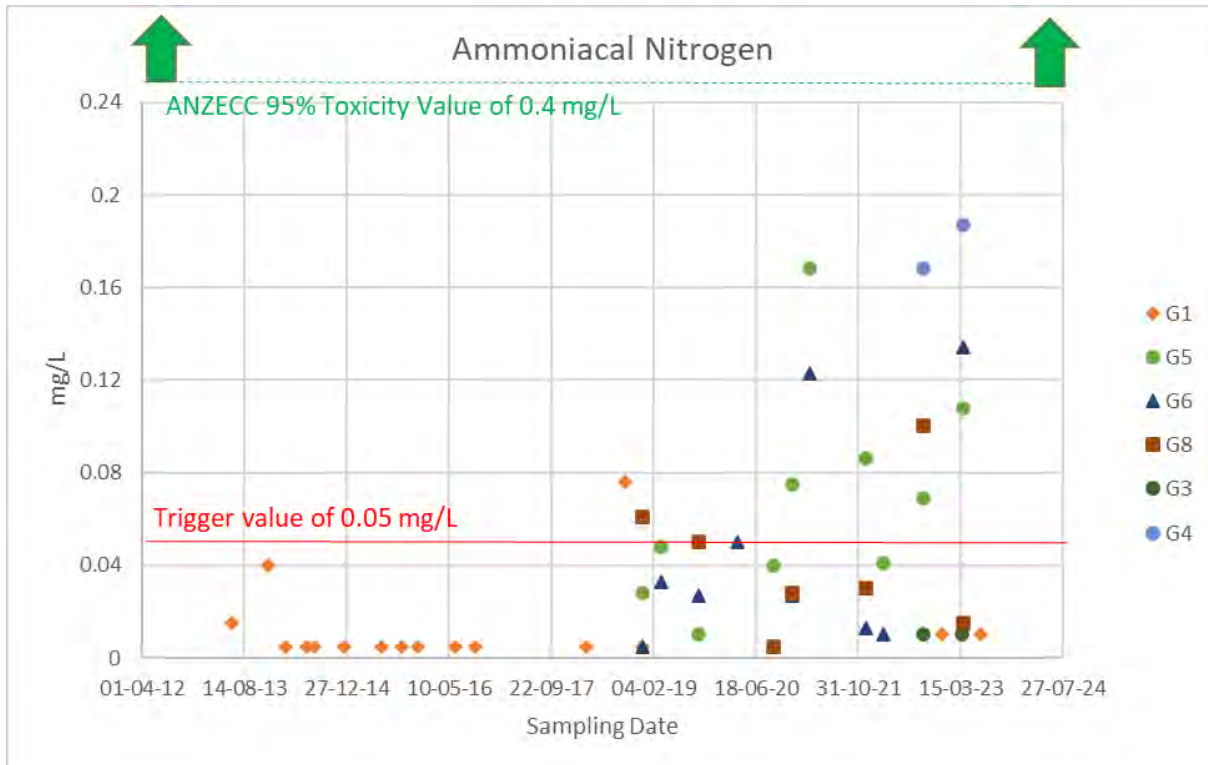


Figure 3-14 Ammoniacal nitrogen concentrations in groundwater sampling results.

Ammoniacal nitrogen concentrations within the leachate monitoring results for the reporting period ranged from below detection limits to 0.027 mg/L.

3.4.6 Nitrate-Nitrogen

Nitrate is not a direct indicator of leachate but could result from the oxidation of ammonia in the leachate to nitrate. It can also be sourced from other sources and hence an ITV was not proposed for this parameter, but it should continue to be monitored for information purposes. Nitrate-nitrogen results from all surface water monitoring locations were lower than the NPS-FM national bottom-line value of 3.5 mg NO₃-N/L with most results being below detection limits.

3.4.7 Dissolved Zinc

The Australian and New Zealand Guidelines (ANZG) 2018 default guideline values (DGV) for 95th percentile species protection for zinc is 0.008 mg/L. The ITV is 0.004 mg/L and the majority of surface water samples were below the ITV during the reporting period (see Figure 3-15).

It is noted that the laboratory detection limit for zinc was 0.001 mg/L, which is lower than the DGV.

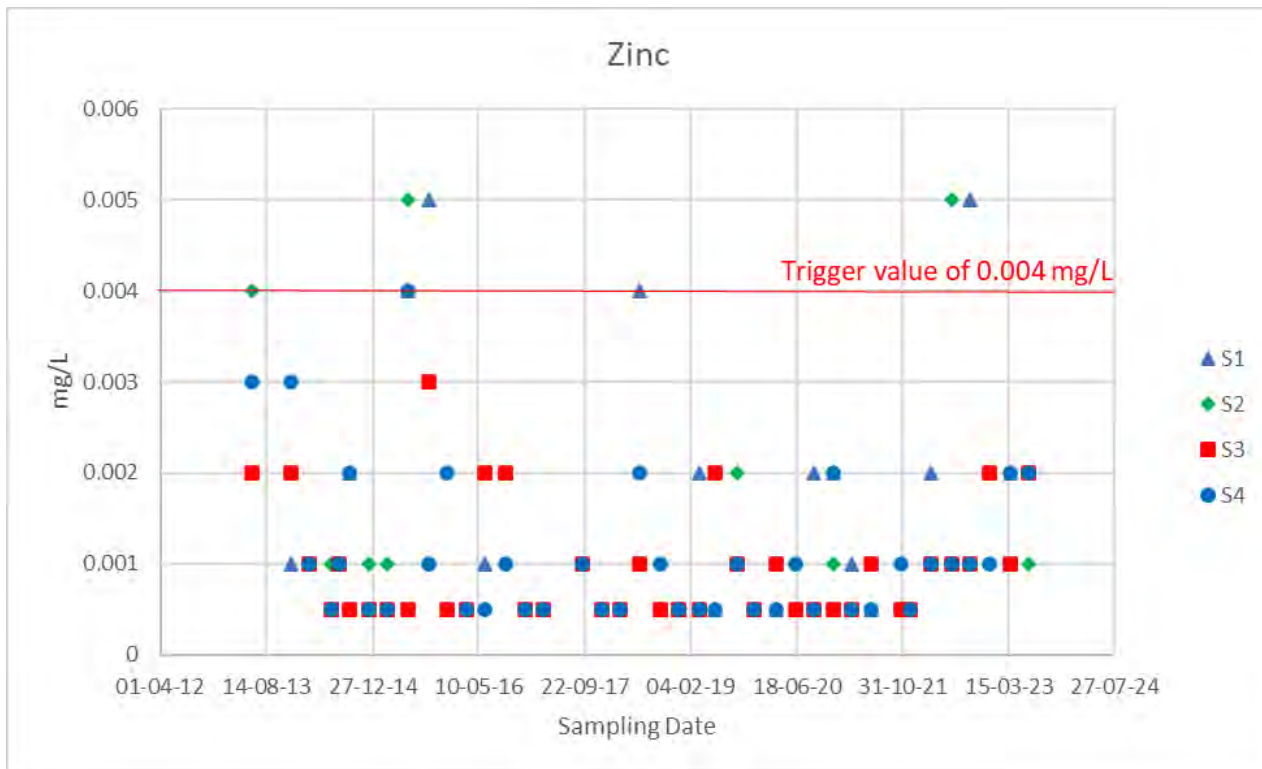


Figure 3-15 Dissolved zinc concentrations in surface water sampling results.

Zinc concentrations within the groundwater monitoring samples located in the land application area are higher than the ITV. However, these results are consistent with monitoring data 2019 – 2022, prior to any landfill material being accepted at the site and therefore are not likely to be due to landfill leachate.

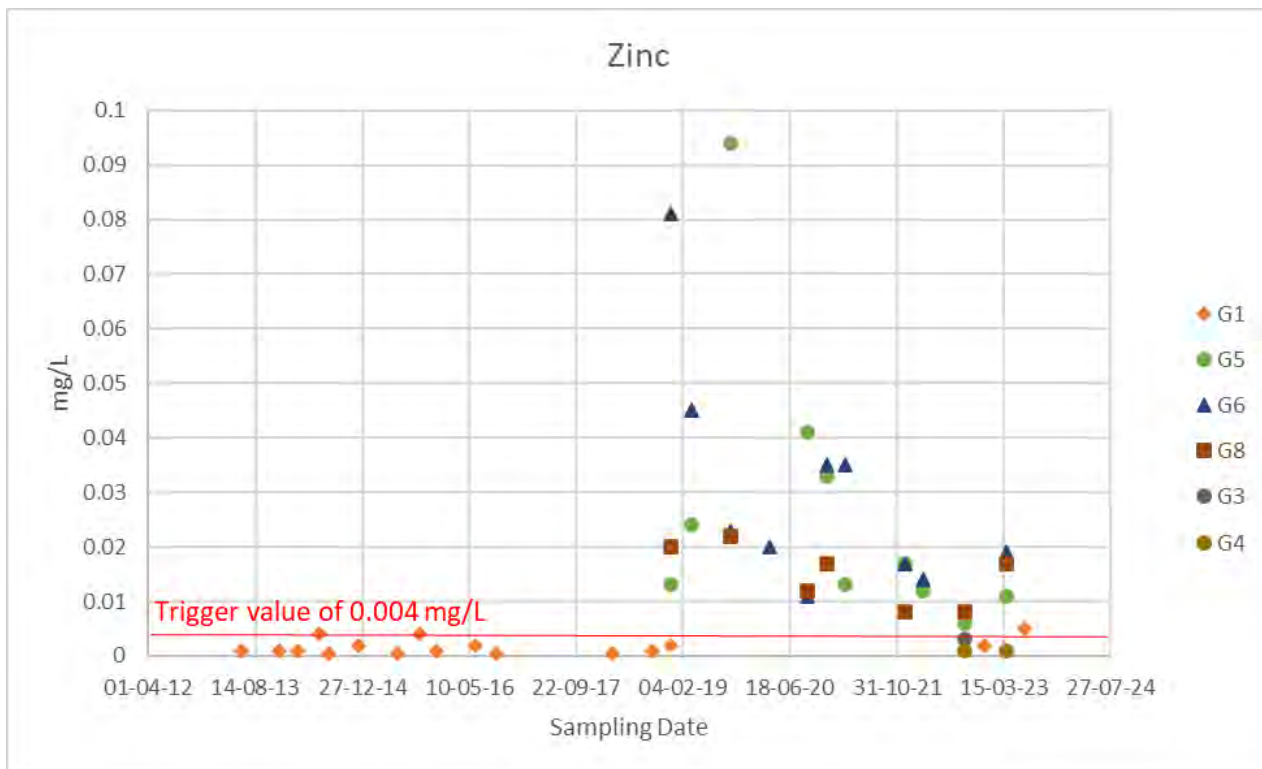


Figure 3-16 Dissolved zinc concentrations in groundwater sampling results.

Zinc concentrations within the groundwater downgradient of the landfill (G1) are generally below the ITV during the reporting period except for the sample taken 19 June 23 which was 0.005 mg/L.



3.4.8 pH

A River Environment Classification (REC2) of 'Cool-wet-low elevation, volcanic-basic' was assumed based on the climate and topographic characteristics of the area surrounding Owenga. The streams described in this report have not been formally classified by National Institute of Water and Atmospheric Research, therefore the criteria described in the 2010 Handbook have been applied to estimate the applicable REC2 class. The ANZG 2018 DGV for physico-chemical stressors in freshwater bodies specifies a pH range of between 7.23 to 7.8 pH units for this REC.

In general, surface water and groundwater were moderately acidic to neutral with a pH range between 4.2 and 7.6, as would be expected given the peaty conditions at the site. pH is generally used to interpret the results from other parameters and an ITV was not considered necessary for this parameter.

3.4.9 Landfill Operation Monitoring

The LDMP requires that the operator undertakes a routine of inspections throughout the year these include:

Daily Operations and Maintenance checks (check list 6 in the LDMP) of the:

- Leachate Pond
- Leachate Pond Outlet
- Dosing Siphon System
- Treatment Plant
- Application Area.

Weekly Operations and Maintenance checks (check list 7 in the LDMP) of the:

- Leachate Pond and Outlet Chamber
- Dosing Siphon System
- Treatment Plant
- Application Area.

Monthly Maintenance Requirements (check list 8 in the LDMP) of the:

- Leachate Pond and Outlet Chamber
- Dosing Siphon System
- Treatment Plant
- Application Area.

Three Monthly Environmental Monitoring (check list 9 in the LDMP) of the:

- Leachate Pond Inlet and Outlet Chamber
- Treatment Plant.

Annual Maintenance checks (check list 10 in the LDMP) of the:

- Leachate Pond and Outlet Chamber Bridge
- Treatment Plant.

Fulton Hogan have not undertaken specific site inspections or walkovers during the reporting period. These are only done ad-hoc as part of normal operation (tipping and compaction). Site record keeping should be reviewed and changes made where necessary to ensure that the LDMP check lists are being completed and available to include within future monitoring reports as appropriate.

4 Leachate Collection and Disposal

4.1 Records of Operation, Inspection and Maintenance of the Leachate Collection, Treatment and Disposal Systems.

Condition 19 of the special conditions to discharge stormwater and treated leachate onto land within the discharge permit requires that within three months of the second anniversary of the start of the leachate treatment system trial, the CIC provides a report about the trial to the Consent Authority. The report should include:

- a) pond influent and effluent quality monitoring results;
- b) leachate flow rate results;
- c) peat filter effluent results;
- d) peat specifications;
- e) groundwater monitoring port results for groundwater level and ground water quality;
- f) photographic record of irrigation area at monthly intervals;
- g) an assessment of the performance parameters and adequacy of the treatment and disposal system;
- h)

The required monitoring of the leachate, flow levels, groundwater levels, etc. has not been completed during this reporting period. Site record keeping procedures should be reviewed and changes made where necessary to ensure that the requirements of condition 19, including photographic evidence, are being completed and available to include within the review of the leachate treatment system trial in 2024.

5 Recommendations and Improvements

This annual monitoring report has been provided in order to meet Condition 12 of the discharge permit. The following improvements and recommendations have been identified as part of this report.

1. Environmental monitoring continues as set out in the LDMP.
2. Monitoring locations to be surveyed during the next topographical survey.
3. Groundwater sampling location G2 to be identified clearly in the field and sampling to re-commence there.
4. Site record keeping procedures should be reviewed and changes made where necessary to ensure that appropriate records are kept for all matters required in the LDMP.
5. Leachate flow levels and groundwater levels to be monitored.
6. Field monitoring sheets and laboratory results sheets to be made available for inclusion in the next annual monitoring report.

Appendices



Appendix A Resource Consent



IN THE MATTER OF

The Resource Management Act 1991

AND

IN THE MATTER OF

Application by the Chatham Islands Council for a designation and resource consents to establish, operate and maintain a landfill

BETWEEN

CHATHAM ISLANDS COUNCIL
Applicant

AND

CHATHAM ISLANDS COUNCIL
Respondent

DECISION OF HEARINGS COMMISSIONER

Sharon McGarry

19th December 2013

Heard on the 19th November 2013 at the offices of the
Chatham Islands Council, Waitangi, Chatham Island

Annexure 1

Notice of Requirement CIC/2013/03 - Chatham Islands Landfill

| | |
|-------------------------------|---|
| Requiring Authority: | Chatham Islands Council |
| Notice of requirement: | To designate a site for Solid Waste Management Purposes |
| Site Location: | Waitangi-Owenga Road, Chatham Island legally described as Part of Sec 12, Owenga Settlement (SO24463) |

General

- (1) The designation shall apply to the land identified on the following attached plan entitled Landfill Designation Plan and attached to the Notice of Requirement as MWH Land Designation Plan: Drawing No Z1724300, Sheet 001 Rev B dated 24 September 2012.

Existing Landfills

- (2) Within 12 months of the commissioning of the Chatham Islands Landfill the Requiring Authority shall not accept waste at the existing sites at Te One, Owenga and Kaingaroa, and shall take steps to initiate the closure, remediation, and rehabilitation of the existing landfill sites.

Landfill Development and Management Plan

- (3) The Requiring Authority shall develop and operate the landfill site in accordance with the Landfill Development and Management Plan (dated December 2013) which formed part of the application documents, and which details the procedures to be implemented to:
- (a) ensure the landfill is developed and operated in compliance with the conditions of this designation.
 - (b) minimise the potential for significant adverse environmental effects resulting from discharges associated with the operation, maintenance and management of the landfill.
 - (c) The Landfill Development and Management Plan shall be maintained and updated as necessary to reflect changes or improvements in landfill design or operation or as required by the conditions of this designation.
 - (d) Any amendments to the Landfill Development and Management Plan shall:
 - (i) be to improve the operation of the landfill or reduce any adverse effects;

- (ii) not exacerbate existing adverse environmental effects, or generate a new adverse environmental effect not otherwise anticipated in this designation;
 - (iii) not include any changes to the acceptability categories for diverted material and wastes unless the changes are consistent with any amendment to the Resource Management Act, or any document accepted as a New Zealand Guideline or Standard.
 - (iv) be consistent with the conditions of this designation.
- (e) Any subsequent amendments to the Landfill Development and Management Plan shall be clearly identifiable with a new revision number and revised date on the front cover and submitted to the Consent Authority one month prior to implementing any resulting changes to landfill operations.
- (f) Any revised Landfill Development and Management Plan must be accompanied with a certificate signed by a suitably qualified and experienced person(s) certifying that the amendments:
- (i) improve the operation of the landfill, and will not exacerbate existing adverse environmental effects, or generate any new adverse environmental effect; and
 - (ii) meet the requirements of all of the designation conditions.
- (g) The suitably qualified and experienced person(s) shall also sign a statement confirming that they are competent to certify the revision and provide their qualifications and experiences relevant to the amendments undertaken.
- (4) The Requiring Authority shall develop, operate, maintain and monitor the landfill as relevant to the stage of development, in accordance with the most current revision of the Landfill Development and Management Plan.

Archaeology

- (5)
- (a) If archaeological material such as koiwi (human skeletal remains), taonga or artefacts are discovered during the:
- (i) construction, operation or maintenance of the landfill; or
 - (ii) quarrying of material for the landfill from a new site;
 - (iii) development of Council developed or operated waste transfer and recycling stations;

all work that may affect the archaeological material shall cease immediately.

- (b) The New Zealand Historic Places Trust shall be contacted in the event of the discovery, as well as the Consent Authority, and the Hokotehi Moriori Trust and Ngāti Mutunga o Wharekauri Iwi Trust and or their representatives.
- (c) No work within 10 metres of the archaeological material discovered shall be undertaken until the appropriate approvals have been obtained by the New Zealand Historic Places Trust, and/or any other necessary authorisations have been issued.

Fire Management

- (6) Burning of waste within the designation site is not authorised, and any fire shall be extinguished as soon as possible.
- (7) An on-site supply of readily available soil cover and any necessary plant or equipment shall be provided for the purpose of firefighting.
- (8) The Requiring Authority shall form and maintain a fire break within the boundary of the landfill site as necessary to minimise the likelihood of a landfill fire spreading beyond the immediate area.

Amenity

- (9) The Requiring Authority shall take all practicable steps to limit the potential for odour and dust nuisance caused by the landfill activity beyond the site boundary.
- (10) The Requiring Authority shall ensure that all construction activity is undertaken in accordance with NZS6803:1999 "Acoustics – Construction Noise".
- (11) The landfill activity shall not generate noise associated with operational activities that exceeds the following limits measured at the notional boundary of the nearest dwelling on an adjoining site:
 - (a) -55dBa L10 7am-7pm daily;
 - (b) -55dBa L10 7pm-7am daily; and
 - (c) -75dBa Lmax all days between 10pm and 7am.

Noise levels shall be measured in accordance with NZS6801:1991 and be assessed in accordance with NZS 6802:1991.

Litter

- (12) The Requiring Authority shall take all practicable steps to prevent litter escaping beyond the designation area boundary and in particular shall utilise catch fences or similar effective means to contain litter when disposing of waste at the site.

- (13) Litter outside the boundary of the designation area that may have originated from the landfill shall be removed by the Requiring Authority, at the earliest practicable opportunity.

Pest and Weed Management

- (14) The Requiring Authority shall prepare and implement a Pest Control Programme adequate to prevent the establishment and proliferation of pest animals, birds and insects within the designation area. The Pest Control Programme shall be detailed in the Landfill Development and Management Plan and be prepared and completed prior to the commencement of operations at the landfill.

- (15) The Pest Control Programme shall:

- (a) be implemented and maintained for the duration of the landfill activity and for no less than five years following the implementation of the Restoration and Aftercare Programme; and
- (b) outline effective measures to be used to control pests, which may include but not limited to the use of traps or poisons.

- (16) The Requiring Authority shall prepare and implement a Weed Control Programme adequate to prevent the establishment and proliferation of pest plants within the designation area. The Weed Control Programme shall be detailed in the Landfill Development and Management Plan and be prepared and completed prior to the commencement of operations at the landfill.

- (17) The Weed Control Programme shall:

- (a) be implemented and maintained for the duration of the landfill activity and for no less than five years following the implementation of the Restoration and Aftercare Programme; and
- (b) include a visual inspection of land within the designation by a person suitably qualified and experienced to identify and locate pest plant species to be controlled. This visual inspection shall occur no less than annually, with the results of the inspection reported to the Chatham Island Council's General Manager within 20 working days of completing the inspection. The Requiring Authority shall undertake such measures as may be necessary to implement the Weed Control Programme within one growing season of each annual inspection report.

Landscaping

- (18) Screening and amenity landscaping shall be undertaken in general accordance with the Landfill Development Concept contained in the resource consent and Notice of Requirement application document submitted as part of the application process.

Access

- (19) There shall be no public access to the designation area. Appropriate signage advising the public of the purpose of the site and that unauthorised public access is not allowed shall be maintained at the site entrance.
- (20) The site access shall be gated at the road end, and shall be locked at all times when unattended or not open to contractor vehicles.
- (21) The perimeter of the designation area shall be fenced along the boundary of the leased land with a stock-proof fence, which is to be maintained at all times by the Requiring Authority to prevent stock access to the landfill site.
- (22) Access to the landfill site from the Waitangi-Owenga Road shall be formed in accordance with the standards contained in the Unsealed Roads Manual – Guidelines to Good Practice, Revised Edition, ARRB Transport Research Limited, August 2000: or its successor.
- (23) Access to the landfill site shall be formed and maintained to ensure that:
 - (a) it does not have any adverse effects on the Waitangi-Owenga Road drainage system;
 - (b) stormwater and detritus does not migrate onto the Waitangi-Owenga Road or the landfill access road;
 - (c) the access road intersects the Waitangi-Owenga Road boundary within 15 degrees of a right angle; and
 - (d) the access road provides for clear visibility along the Waitangi-Owenga Road in both directions in accordance with the requirements of ARRB publication identified in Condition (22).

Lapse of Designation

- (24) The Requiring Authority has 10 years from confirmation of the requirement, in accordance with Section 184(1) of the RMA, to give effect to the designation.

ADVICE NOTE

The Requiring Authority is advised that they are required to comply with all relevant provisions of the Building Act 2004 prior to commencing work.

Discharge Permit CIC/2013/02 – To discharge solid waste into land, stormwater and treated leachate onto land, and dust, odour and landfill gas into air

General

- (1) The discharges into and onto land, and into air associated with the Chatham Island Landfill shall only occur within the area designated in the Chatham Islands Resource Management Document for 'solid waste management purposes' within the land parcel legally described as Sec 12, Owenga Settlement (SO24463).
- (2) The design, construction, operation, maintenance and monitoring of the Chatham Island Landfill shall be carried out in general accordance with the documents submitted and held on council files as part of the resource consent application process, and with the conditions of this consent. Where there may be conflict with the conditions, the conditions of this consent shall prevail.

Existing Landfills

- (3) Within 12 months of the commissioning of the Chatham Island Landfill the Consent Holder shall not accept waste at the existing sites at Te One, Owenga and Kaingaroa, and shall take steps to initiate the closure, remediation, and rehabilitation of the existing landfill sites.

Landfill Development and Management Plan

- (4) The Consent Holder shall develop and operate the landfill in accordance with the Landfill Development and Management Plan (dated December 2013) which formed part of the application documents, and which details the procedures to be implemented to:
 - (a) ensure the landfill is developed and operated in compliance with the conditions of this consent; and
 - (b) minimise the potential for adverse environmental effects resulting from discharges associated with the operation, maintenance and management of the landfill.
- (5)
 - (a) The Landfill Development and Management Plan shall be maintained and updated as necessary to reflect changes or improvements in landfill design or operation or as required by the conditions of this consent.
 - (b) The Landfill Management and Development Plan shall include a separate Appendix which sets out contingency measures proposed to avoid, remedy or mitigate the any adverse effects that may occur as a result of exercising this consent.
 - (c) Any amendments to the Landfill Development and Management Plan shall:

- (i) be to improve the operation of the landfill or reduce any adverse environmental effects; and
 - (ii) not exacerbate existing adverse environmental effects, or generate any new adverse environmental effects not otherwise anticipated in this consent;
 - (iii) not include any changes to the acceptability categories for diverted material and wastes unless the changes are consistent with any amendment to the Resource Management Act, or any document accepted as a New Zealand Guideline or Standard; and
 - (iv) be consistent with the consent conditions.
- (d) Any subsequent amendments to the Landfill Development and Management Plan shall be clearly identifiable with a new revision number and revised date on the front cover and submitted to the Consent Authority one month prior to implementing any resulting changes to landfill operations.
- (e) Any revised Landfill Development and Management Plan must be accompanied with a certificate signed by a suitably qualified and experienced person(s) certifying that the amendments:
- (i) improve the operation of the landfill, and will not exacerbate existing adverse environmental effects, or generate a new adverse environmental effect; and
 - (ii) meet the requirements of all of the consent conditions.
- (f) The suitably qualified and experienced person(s) shall also sign a statement confirming that they are competent to certify the revision and provide their qualifications and experiences relevant to the amendments undertaken.
- (6) The Consent Holder shall develop, operate, maintain and monitor the landfill as relevant to the stage of development, in accordance with the most current revision of the Landfill Development and Management Plan.

Archaeology

- (7)
- (a) If archaeological material such as koiwi (human skeletal remains), taonga or artefacts are discovered during the:
 - (i) construction, operation or maintenance of the landfill; or
 - (ii) quarrying of material for the landfill from a new site; or

- (iii) development of Council developed or operated waste transfer and recycling stations;

all work that may affect the archaeological material shall cease immediately.

- (b) The New Zealand Historic Places Trust shall be contacted in the event of the discovery, as well as the Consent Authority, and the Hokotehi Moriori Trust and Ngāti Mutunga o Wharekauri Iwi or their representatives.
- (c) No work within 10 metres of the archaeological material discovered shall be undertaken until the appropriate approvals have been obtained by the New Zealand Historic Places Trust, and/or any other necessary authorisations have been issued.

As Built Drawings

- (8) As built drawings of all works or structures on the site, including liners, stormwater diversions, and leachate storage, treatment and disposal systems shall be provided to the Consent Authority within six months of the completion of construction of each stage.

Complaints Register

- (9) A complaints register shall be maintained for all complaints relating to the use of the site as a landfill. Any complaints received shall be investigated as soon as practicable and measures implemented to mitigate any actual significant adverse effect.
- (10) The complaints register shall be made available to the Consent Authority on their request, and shall contain but not be limited to the following information:
 - (a) date complaint received;
 - (b) complainant's name;
 - (c) nature of complaint;
 - (d) date of review of complaint;
 - (e) date of actioning complaint and/or outcome of review;
 - (f) action taken, if any; and
 - (g) date complaint closed out.
- (11) If a significant adverse effect beyond the site boundary is confirmed, the Consent Holder will take the following actions:
 - (a) further monitoring will be performed where necessary to determine the extent, scale and nature of the effect;
 - (b) the effect or event will be reported to the Consent Authority and along with the results of any additional monitoring necessary within 10 working days of completing investigations;

- (c) based on the outcome of any necessary investigations, the Consent Holder shall identify and implement mitigation and/or remediation measures appropriate to the scale and nature of the adverse effect; and
- (d) advise the Consent Authority of the intended mitigation and/or remediation measures to be implemented, the timeframe proposed, and the on-going monitoring necessary to ensure the effect is successfully addressed.

Reporting

- (12) On the last working day of September following the first anniversary of exercising this consent, the Consent Holder shall submit an annual report to the Consent Authority. The annual report shall summarise the previous year's development and operation, identify any management improvements and present monitoring information including:
 - (a) records of any complaints received;
 - (b) records of waste types and quantities received;
 - (c) records of quantity of cover material used;
 - (d) estimates of landfill compaction density achieved;
 - (e) records of any landfill development undertaken during the course of the previous year;
 - (f) results of all environmental and landfill operation monitoring undertaken during the year;
 - (g) interpretation of the results, in the context of the previous results; and
 - (h) records of operation, inspection and maintenance of the leachate collection, treatment and disposal systems.

Review

- (13) The Consent Authority may, on or within three months of the anniversary of the granting of this consent, serve notice on the Consent Holder of its intention to review the conditions of consent for the following purposes:
 - (a) To address any adverse effect on the environment which may arise from the exercise of the consent and which is appropriate to address at a later date;
 - (b) To require the adoption of the best practicable option to remove or reduce any significant adverse effect on the environment;
 - (c) To deal with inaccuracies contained in the consent application that materially influenced the decision made on the application and which are

such that additional conditions are necessary to avoid, remedy or mitigate the effects of the activity;

- (d) To assess the appropriateness of compliance standards, monitoring parameters and frequencies and to alter these if necessary to better manage the actual or potential adverse effects of the activity;
- (e) To take into account the rules, regulation or policies contained in the Chatham Islands Resource Management Document; or
- (f) To take into account changes in waste acceptance criteria as a result of changes to any relevant legislation, standards and guidelines.

Consent Term

- (14) The term of this consent is 35 years.

Lapse of Date

- (15) The Consent Holder has ten years from the grant of consent, in accordance with Section 125(1) of the RMA, to give effect to the discharge activities.

Specific Conditions to Discharge Solid Waste onto Land

Description

- (1) The discharge of solid waste onto land within Landfill designation area associated with the operation of the Chatham Island Landfill shall only include accepted waste as outlined in the Landfill Development and Management Plan (dated December 2013).

Waste Acceptance

- (2) No liquid waste shall be accepted, with the exception of landfill leachate. For waste to be considered non-liquid it must meet one of the following requirements:
- (a) a solids content of at least 20 percent and liberate no free liquids when transported; or
 - (b) no free liquids when tested in accordance with the US EPA Paint Filter Liquids Test (US EPA Method 9095A 1996) and liberate no free liquids when transported.
- (3) Medical wastes shall be only accepted in accordance with NZS 4304: 2002 "Healthcare Waste Management", or subsequent amendments.
- (4) Asbestos waste shall be only accepted in accordance with the Asbestos Regulations 1998 or subsequent amendments.
- (5) The following wastes shall not be accepted:
- (a) Sludge and septic tank waste.
 - (b) Fish waste.
 - (c) Category 'A' wastes which comprise:
 - (i) radioactive wastes;
 - (ii) lead acid batteries;
 - (iii) used oil;
 - (iv) refrigerators or freezers that have not been degassed;
 - (v) PCB wastes;
 - (vi) wastes on the New Zealand Waste List (L Code) described as liquids, solvents, acids and alkalis; and
 - (vii) wastes or substances defined as explosive, flammable, oxidising or corrosive under the Hazardous Substances and New Organisms Act 1996.
 - (d) Category 'B' wastes which comprise all waste marked with an asterisk on the New Zealand Waste List (L Code) except for the exceptions stated under Category 'C' wastes.
 - (e) Any other waste type categorised as being "prohibited" in Table 3.4.1 of the Landfill Development Management Plan.
- (6) The following wastes are acceptable for disposal at the landfill:

- (a) Category 'C' wastes which comprise of waste marked with an asterisk on the New Zealand Waste List (L Code) but which meet one of the following criteria:
 - (i) Solid wastes which, following testing for total concentration, result in total concentration values less than the screening criteria listed in Table 2 (see Appendix C of the Landfill Development and Management Plan).
 - (ii) Solid wastes, which, following testing using the US EPA Toxicity Characteristic Leaching Procedure (TCLP), result in leachable concentrations of contaminants less than the leachable concentration values listed in Table 2. For contaminants where appropriate TCLP limits are not stated in Table 2, limits shall be set at the lesser of the following:
 - 6.a.ii.1. NZS 9201 Model Trade Waste Bylaw limits;
 - 6.a.ii.2. 100 times the New Zealand drinking water standard; and
 - 6.a.ii.3. 1000 times the guideline for protection of aquatic species.
 - (iii) Any asterisked waste stream from the NZ Waste List (L Code) identified as containing asbestos – assuming they are labelled, packaged and disposed of in accordance with the requirements laid out in the Asbestos Regulations 1998.
 - (iv) Small quantities of waste products containing potentially hazardous components that are not likely to have adverse effects on the environment, such as can be reasonably expected to be contained in the municipal waste stream.
 - (b) Any other waste type categorised as being “permitted” or “controlled” in Table 3.4.1 of the Landfill Development Management Plan.
- (7) After consultation with the Consent Holder, the Consent Authority may request the Waste Acceptance Criteria in the Landfill Development and Management Plan be reviewed under the following conditions:
- (a) upon the release of any amendment to the Resource Management Act, or any document accepted as a New Zealand Guideline or Standard, which addresses the tracking and/or responsibilities for hazardous waste materials; or
 - (b) in response to changes in the national definition of hazardous wastes, or the release of new national hazardous waste treatment and/or disposal guidelines, or changes to the standards relating to medical wastes.

Operation

- (8) A notice shall be clearly positioned at the landfill entrance to identify the wastes that are “prohibited” at the landfill.
- (9) In the event that the Consent Holder is made aware of a delivery of hazardous waste to the site which cannot be accepted, the Consent Holder shall take immediate steps to inform the Consent Authority of:
- (a) the date and time at which the vehicle was turned away;
 - (b) the registration number of the vehicle;
 - (c) the identity of the carrier (if known);
 - (d) the size and type of the load;
 - (e) the source of the load (if known); and
 - (f) the category of the hazard (if known).
- (10) Sludge, soil and similar fine particle size materials or waste that will chemically react with any part of the liner shall not be placed within three metres of the top of the leachate collection system.

Records

- (11) The following records are to be maintained and annually reported to the Consent Authority:
- (a) number of transfer vehicles using the landfill;
 - (b) quantities and types of waste that have been accepted at the site;
 - (c) details of all wastes requiring special handling accepted at the site, including their nature, source, quantity, disposal location (in terms of level above the liner and GPS co-ordinates) and/or method of disposal; and
 - (d) details of hazardous waste that is not accepted at the landfill including all the information required by the previous condition.

Monitoring and Surveys

- (12) To minimise the potential for hazardous waste or unacceptable medical waste to be disposed of at the landfill, the following measures shall be taken:
- (a) checking of any load which requires special handling; and
 - (b) random inspections of incoming loads for the presence of unacceptable wastes.
- (13) Surveys are to be conducted annually to determine the in-situ volume of material that has been deposited at the landfill.
- (14) The Consent Holder shall annually survey the height and shape of the landfill, shall progress the capping of completed areas and associated landscaping in accordance with the Landfill Development and Management Plan. The results of this monitoring shall be supplied to the Consent Authority.

Restoration and Aftercare

- (15) At least 12 months prior to all landfill operations ceasing on the site, the Consent Holder shall submit a Landfill Closure and Aftercare Plan to the Consent Authority, for confirmation that it adequately addresses the matters identified below, and that any actual or potential adverse effects will be appropriately managed on an on-going basis. The Consent Holder shall implement the Landfill Closure and Aftercare Plan within six months of closing the final landfill cell. The Landfill Closure and Aftercare Plan shall address but not be limited to the following matters:
- (a) land ownership;
 - (b) responsibility for landfill maintenance, monitoring and compliance, including in regard to the access road;
 - (c) removal of buildings, structures, tracks and other non-essential items associated with the landfill other than those required for on-going maintenance;
 - (d) final contours;
 - (e) capping, re-vegetation and weed control;
 - (f) maintenance of the landfill cap to prevent cracking and ponding of stormwater;
 - (g) management of land uses to prevent contamination of surface water runoff by sediment or nutrients;
 - (h) on-going operation and maintenance of leachate treatment and management systems;
 - (i) on-going monitoring, including effects on surface and groundwater, and site capping; and
 - (j) funding of aftercare.

Specific Conditions to Discharge Stormwater and Treated Leachate onto Land

Description

- (1) The discharge shall be only stormwater and treated leachate generated from the construction and operation of the Chatham Island Landfill onto and into land within the landfill site boundary.

Advice Note: Discharges of uncontrolled leachate (leakage) from the landfill or leachate storage pond onto or into to land and/or surface water are not authorised by this resource consent.

Stormwater and Groundwater Management

- (2) The Consent Holder shall operate and maintain a clean stormwater and groundwater diversion, collection and disposal system within the landfill site as necessary to ensure:
- (a) clean stormwater from upslope and side overland flow does not enter the active fill area; and
 - (b) groundwater does not adversely affect the landfill, in particular the liner system.
- (3) Clean stormwater from overland flow shall be diverted away from the landfill depression and where generated within the depression away from the active landfill working area, for up to and including a one percent annual exceedance probability (1%AEP) storm event.
- (4) A groundwater under drainage system shall be constructed and maintained to intercept groundwater seepages and to control groundwater levels beneath the land fill area, and shall provide for:
- (a) an over design of the drainage layers and pipes to allow for clogging and possible deterioration over time;
 - (b) pipes designed to allow inspection and maintenance and to carry the maximum probable flow;
 - (c) selection of filter stone and fabric to avoid potential clogging or drainage layers by fine materials; and
 - (d) protection of pipes to ensure risk of damage is negligible.

Leachate and Contaminated Stormwater Management

- (5) The Consent Holder shall operate and maintain a leachate and contaminated stormwater collection, management, treatment and disposal system within the landfill site as necessary to ensure leachate and stormwater that has come into contact with waste are collected and treated to a standard that avoids more than

minor adverse effects on the down gradient groundwater and the downstream surface water environment.

Liner and Leachate Collection Systems Design

- (6) The landfill basal liner system shall comprise, from bottom to top, of at least the following materials:
- (a) For Stage 1 -
 - (i) 1.5 millimetre thick single-sided textured liner low density polyethylene (LLDPE) liner or a 1.5 millimetre thick single-sided textured liner high density polyethylene (HDPE, Superflex or approved equivalent); and
 - (ii) a leachate drainage layer to provide a permeable path to the leachate drains and control the head of leachate within the drainage layer. The drainage layer shall be a minimum of 300 millimetre thick and consist of an approved drainage layer separated by a geofabric with perforated drainage pipes placed within the drainage layer as detailed in the Landfill Development and Management Plan.
 - (b) For Stage 2 -
 - (i) 600 millimetres of compacted clay, compacted to achieve a permeability of not greater than 1×10^{-9} metres per second (m/s), or 1.5 millimetre thick single-sided textured linear low density polyethylene (LLDPE) liner or a 1.5 millimetre thick single-sided textured liner high density polyethylene (HDPE, Superflex or approved equivalent); and
 - (ii) a leachate drainage layer to provide a permeable path to the leachate drains and control the head of leachate within the drainage layer. The drainage layer shall be a minimum of 300 millimetre thick and consist of an approved drainage layer separated by a geofabric with perforated drainage pipes placed within the drainage layer as detailed in the Landfill Development and Management Plan.
 - (c) For Stages 3 to 10 the materials used shall be either the liner specified for Stage 1 or Stage 2 or a certified alternative.
- (7) The landfill base liner system shall be constructed in accordance with the synthetic materials manufacturer's recommended quality assurance/quality control procedures.
- (8) The subgrade on which the liner is to be constructed shall be graded and for Stage 1, shall incorporate a geogrid layer to help control differential settlement. For Stage 2 onwards, the subgrade shall be pre-loaded with fill material to induce settlement prior to constructing the liner and leachate collection system.

- (9) The clay proposed to be used as a liner shall be subject to representative testing to assess its permeability prior to being adopted for use in the Stage 2 landfill basal liner system and subsequent stages. If the clays cannot achieve a permeability of less than 1×10^{-9} m/s then the Stage 1 liner or an approved alternative design shall be adopted.
- (10) The in-situ soils beneath the landfill stages shall be subject to representative testing and/or monitoring to assess settlement characteristics. The consent holder shall take any necessary action as a result of the testing and/or monitoring to mitigate adverse effects of settlement.
- (11) Alternative liner designs and materials may be substituted with the written certification of a suitably qualified and experienced Chartered Professional Engineer, where the alternatives are demonstrated to provide equivalent or superior performance in respect of:
- (a) resistance to chemical degradation.
 - (b) hydraulic containment.
 - (c) attenuation capacity, diffusion, and leachate dispersion.
 - (d) physical strength, durability, puncture resistance and deformation characteristics under service and seismic loads.
 - (e) general installation procedures.
 - (f) expected service life.
- (12) Prior to the commencing physical works on each stage of the landfill liner and cell, the detailed designs of the Liner and Leachate Collection Systems, and any alternative design and materials used shall be reviewed and certified by a suitably qualified and experienced Chartered Professional Engineer as complying with the relevant conditions of this consent, and the written certification of the design shall be forwarded to the Consent Authority.

Leachate Storage, Treatment and Disposal System Design

- (13) Any leachate treatment and storage pond and related structures shall be designed and constructed to prevent, as far as practicable, the leakage of untreated leachate and / or dirty stormwater to land and / or water.
- (14) The leachate storage pond shall be designed and constructed to:
- (a) prevent entry of stormwater from adjoining land for up to and including a 1% AEP storm event.
 - (b) prevent discharge of untreated leachate to land and / or water during an event up to and including a 1%AEP storm event, and the capacities provided should include:
 - (i) the volumes of direct rainfall into the storage pond; and
 - (ii) the increases in seasonal and annual rainfall depths and potential for maximum increase in intensities for storm events as a result of climate change in accordance with the Ministry for the Environment

(MfE) 2008. *Climate change effects and impacts assessment: A Guidance Manual for Local Government in New Zealand*, 2nd Edition May 2008.

- (c) prevent discharge of leachate into surface water during earthquake ground motions with a return period up to and including 100 years under all operating conditions.
- (15) The leachate treatment system shall:
- (a) have capacity to treat leachate flows collected from the landfill operation at any given time
 - (b) be designed generally in accordance with the provisions for the Landfill Development and Management Plan
- (16) The leachate disposal system and area shall be designed and constructed to:
- (a) Have an irrigation system which the discharge shall be applied evenly onto soils, and at a rate which shall not exceed the value in Table M1 in the Australian/New Zealand Standard 1547:2012 for the soil type at the site.
 - (b) Be planted and maintained with a healthy coverage of suitable plant or tree species with a high biomass production that enables high levels of nutrient uptake and harvesting.
 - (c) Have four groundwater monitoring ports distributed over the irrigation area to a depth of at least one metre.
 - (d) Have more than one metre depth of unsaturated soils between the base of the land application system and the seasonally high water table.
- (17) Prior to commencing physical works on the leachate storage, treatment (trial and permanent system) and disposal systems, the detailed designs shall be reviewed and certified by a suitably qualified Chartered Professional Engineer with experience in landfill design, leachate treatment and disposal as complying with the relevant conditions of this consent, the written certification of the design shall be forwarded to the Consent Authority.

Leachate Treatment Performance Monitoring

- (18) The leachate treatment system shall be monitored over a period of two years with monitoring of leachate flow rates, leachate influent quality and leachate effluent quality
- (19) Within three months of the second anniversary of the start of the leachate treatment system trial, the Consent Holder will provide a report about the trial to the Consent Authority. The report will include:
- (a) pond influent and effluent quality monitoring results;

- (b) leachate flow rate results;
- (c) peat filter effluent results;
- (d) peat specifications;
- (e) groundwater monitoring port results for groundwater level and ground water quality;
- (f) photographic record of irrigation area at monthly intervals;
- (g) an assessment of the performance parameters and adequacy of the treatment and disposal system;
- (h) if considered adequate proposed performance requirements; and
- (i) if considered adequate, proposed additional or alternative treatment provisions.

Construction Certification

- (20) A construction certificate for each stage of the landfill's development signed by a suitably qualified and experienced Chartered Professional Engineer shall be forwarded to the Consent Authority with the as-built drawings (refer General Conditions), certifying that:
- (a) the leachate storage, treatment (trial and permanent system) and disposal systems; or
 - (b) each of staged the liner and leachate collection systems have been constructed in general accordance with the certified detailed design plans

Operation, Inspection and Maintenance

- (21) Within one month of the commissioning of the leachate storage, treatment and disposal systems an Operation, Inspection and Maintenance Manual (The Manual) shall be prepared for the systems and forwarded to the Consent Authority. The Manual shall also include weekly, monthly and yearly record keeping templates of the leachate storage, treatment and disposal systems operation, inspection and maintenance. The disposal system record template shall require recording of the leachate irrigation locations and areas (square metres) and the loading rate (millimetres per day).
- (22) The Manual shall be reviewed at least once every five years or following a new development stage and any amendments forwarded to the Consent Authority.
- (23) The operation, inspection and maintenance of the leachate storage, treatment and disposal systems shall be as per the most recent revision to the Manual.
- (24) The operation, inspection and maintenance records shall be kept up to date and made available on request to the Consent Authority, and shall be reported annually under the general conditions of this consent.

Cover Systems

- (25) The cover system shall be consistent with the provisions of the Landfill Development and Management Plan.

Water Monitoring Programme

- (26) A leachate, groundwater and surface water monitoring programme shall be specified in the Landfill Development and Management Plan. This shall include sampling locations, frequency and parameters for analysis. The programme shall include but not be limited to:
- (a) Monthly records of leachate levels above the liner. The monitoring locations shall be selected to coincide, as far as practicable, with the areas of maximum predicted leachate level. The method shall be capable of providing long-term monitoring of leachate levels.
 - (b) Weekly record of quantity of leachate that remains in storage in the leachate pond, and an estimate of the amount of leachate treated, the amount of leachate disposed to land and the amount removed from site by tanker.
 - (c) Leachate quality (parameters, sampling locations and frequency).
 - (d) Subsoil drain contamination by leachate (monitoring locations, parameters, frequency/timing).
 - (e) Groundwater contamination by leachate (monitoring locations, parameters, frequency/timing).
 - (f) Surface water contamination by leachate (monitoring type and location, flow, parameters, frequency/timing and trigger levels for non-compliance).
- (27) Prior to accepting waste to the landfill at least three baseline monitoring rounds shall be undertaken at the groundwater and surface water monitoring sites identified in the Landfill Development and Management Plan to establish interim groundwater and surface water receiving environment trigger levels.

Cover Inspection

- (28)
- (a) An inspection of the landfill cover system shall occur at least every six months and following any storm events including and greater than a 50% AEP storm event that has a duration of less than 24 hours.
 - (b) The inspection shall check for:
 - (i) vegetation die-off;
 - (ii) cracking of the landfill cover;
 - (iii) subsidence and erosion;
 - (iv) leachate breakout through the cover;
 - (v) new groundwater springs; and
 - (vi) waste protruding through the cover.

- (c) Any defects identified during the inspection of the cover shall be remedied as soon as practicable.

Contingency Measures

- (29) If leachate contamination becomes evident, the following actions will be taken:
 - (a) Further monitoring will be undertaken to confirm the nature and extent of any contamination.
 - (b) Reporting of the contamination to the Consent Authority, and provide the outcome of the additional monitoring within ten working days of completing investigations.
 - (c) Based on the outcome of the additional monitoring undertaken under this condition, the Consent Holder shall identify and implement mitigation and/or remediation measures appropriate to the scale and nature of any leachate contamination. The Consent Holder shall advise the Consent Authority, of the intended mitigation and /or remediation measures to be implemented prior to implementation.
 - (d) The Landfill Development and Management Plan shall be updated in accordance with the General Conditions of this consent, as necessary to reflect any resulting changes to the landfill operation as a result of the effect.

Specific Conditions Discharge of Contaminants into Air

Description

- (1) The discharge of contaminants to air shall be only odour, dust and landfill gases, generated as a result of the development and operation of the Chatham Island Landfill.

Odour, Dust and Landfill Gas Management

- (2) There shall be no noxious, dangerous, offensive or objectionable discharges of odour, dust or landfill gas to air beyond the boundary of the landfill designation area.
- (3) The landfill shall be operated and maintained such that all emissions are minimised to the greatest practicable extent and are, at all times, in compliance with Condition (2) of this consent.
- (4) A minimum buffer distance of ten metres from the site boundary shall be maintained for all site activities which may result in an adverse effect due to odour, dust or landfill gas beyond the boundary.
- (5) In the event of a discharge into air which results in any adverse effect beyond the boundary of the landfill site an investigation of the source of the effect shall occur, and the investigations findings shall be reported to the Consent Authority within five working days as to, and any measures undertaken or to be undertaken to remedy or mitigate the effect, or prevent a reoccurrence.

Monitoring

- (6) Monitoring of odour and dust will be through the complaints procedure detailed in the General Conditions attached to this consent.

Advice Note: In determining whether a nuisance (including odour, noise, and dust) is objectionable, regard shall be given to its frequency, intensity, duration and location.

Appendix B Field Sheets

(To be included in next annual report)



Appendix C Operational Records and Inspections

(To be included in next annual report)



Appendix D Laboratory Results

(To be included in next annual report)



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4. Works & Services

4.6 CIC 2023-24 Bridge Inspection Report

| | |
|---------------------------|-----------------------|
| Date of meeting | 2 May 2024 |
| Agenda item number | 4.6 |
| Author/s | Bryan Peters, Stantec |

Purpose

Information paper for Council.

Recommendations

THAT the reports be received.

Background

Attached is the 2023-24 Bridge Inspection Report prepared by Bryan Peters, Stantec.

2023/2024 Bridge Inspections

PREPARED FOR CHATHAM ISLANDS COUNCIL | March 2024

We design with community in mind

Revision schedule

| Rev No | Date | Description | Signature of Typed Name (documentation on file) | | | |
|----------|-------------|-------------|---|------------|-------------|-------------|
| | | | Prepared by | Checked by | Reviewed by | Approved by |
| A | Jan 2024 | Draft | B Peters | R Tinga | N Lister | H Lallu |
| 0 | Mar 2024 | Final | B Peters | R Tinga | N Lister | H Lallu |
| | | | | | | |



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Quality statement

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| Hanna Lallu | Bryan Peters |

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Executive Summary

This report summarises the findings from the 2023-24 bridge inspection cycle. Inspections were carried out by Stantec staff in February and December of 2023 and included the inspection of all 25 structures (15 Major Culverts, 8 Bridges, 2 Wharves) on Chatham Island, and all 4 bridge structures on Pitt Island.

The bridge inspection list is included in Appendix A .

Of the 29 structures:

- 26 require on going monitoring (by Stantec in the next inspection cycle)
- 20 require routine maintenance (by FH)
- 4 require further investigation or action (by Stantec or FH)

Inspection Results

The Goldseal protective coating applied to the steel beam bridges continues to breakdown and fail, especially on the Nairn River Bridge (#20). The warranty period has come to an end and further discussions are required with the Goldseal supplier to determine the next steps in maintaining this bridge. (refer Section 3.1).

The Bridge Capacity Register (Appendix E) that records the structural capacity of each bridge structure is up to date, with all 29 structures having been assessed. Of these structures, 14 have full HN-HO-72 capacity, nine have full Class 1 capacity, five are posted as less than Class 1, and one (Kaingaroa Wharf) is closed (refer Section 3.2).

Structures with key issues are discussed under Section 3.3 and include recommendations for what work is required and timeframes for when it should be completed. The main issues in this section include:

- Waikawa Culvert (#23): Increase cover depth to 0.6m min
- Te Awainanga (#15): Remove dirt and debris from TR abutment and beams

Work not completed or repeat defects from the previous inspection cycle are discussed in Section 4. This section highlights what work items are not being actioned within the expected time frame and provides guidance on how our systems might be changed to improve the rate of completion, with focus on the high importance issues. This section also provides some discussion on why particular work items are important for the bridge structures, along with a description of the work method. For this round of inspections there were 15 items of work from the previous inspection cycle that have either not been completed or have returned to being defective after an initial intervention.

Replacement Programme

Section 6 highlights the bridge structures that should be considered for significant upgrade works or full replacement. This includes the following:

- Maipito Bridge (#5)
- Te Awainanga Bridge (#15), and
- Lower Nairn Bridge (#20)



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Abbreviations

| Enter Abbreviation | Enter Full Name |
|--------------------|--|
| AS/NZS | Australian Standard / New Zealand Standard |
| CIC | Chatham Islands Council |
| D10 | 10 th Percentile Diameter |
| D50 | 50 th Percentile Diameter |
| D100 | 100 th Percentile Diameter |
| DOC | Department of Conservation |
| HCV | Heavy Commercial Vehicle |
| HDG | Hot Dip Galvanized |
| HN-HO-72 | Typical bridge Loading used for New Bridges/Culverts |
| MWH | Montgomery Watson Harza (now Stantec) |
| NZTA | Waka Kotahi (NZ Transport Agency) |
| PSI | Pounds per Square Inch |
| Q25 | 25 Year Return Period Flow Rate |
| Q250 | 250 Year Return Period Flow Rate |
| RS | Rough Sawn (undressed timber) |
| RAMM | Road Assessment and Maintenance Management database |
| SLS | Serviceability Limit State |
| TL / TR | True Left / True Right (of river) |
| TNZ | Transit New Zealand (now NZTA) |
| ULS | Ultimate Limit State |
| US / DS | Upstream / Downstream (of river) |
| VAI | Vehicle Axle Index |
| VGI | Vehicle Gross Index |



Glossary

| Enter Term | Enter Definition |
|-----------------------------------|--|
| Bridge Culvert | Major culvert structure with greater than 3.4m ² in waterway area (approximately 2.1m dia. or larger for single culverts). Treated as a bridge structure for asset management purposes. Culverts with waterway area less than 3.4m ² can also be included if they are deemed to be significant and require regular inspection. |
| Class 1 | Design loading applicable to small public bridges structures in New Zealand. Allows for all road legal vehicles and has minor provision for overweight vehicles under controlled crossing conditions. |
| Dead Load | The portion of gravity loading applied to a bridge or culvert structure that is permanent. Typically, this is the weight of the superstructure and substructure – decking, beams, handrailing and abutments. |
| Freeboard | For a bridge this is the vertical distance from predicted flood water level to the underside of the bridge beams. For a culvert this is the vertical distance from the predicted flood water level to the road surface above. A freeboard is typically used as a safety margin to prevent damage from flood water. |
| HN-HO-72 | Design loading applicable to most public bridge structures in New Zealand. Allows for all road legal vehicles and includes a significant provision for overweight vehicles under controlled crossing conditions. |
| Live Load | The portion of gravity loading applied to a bridge or culvert structure that is due to various users groups travelling across the structure. Typically, this is the weight of vehicles, pedestrians and cyclists. |
| Mooring Platform | Portion of the wharf at which boats dock and attach to via ropes. Typically, this is the portion of the wharf farthest from the shoreline. The mooring platform is typically protected by fender piles that limit the impact forces and prevent damage from moored boats. |
| Posting | Any bridge structure identified as having a design capacity of less than Class 1 requires the erection of signage that advises drivers of those limits. Posting signage typically includes details of the maximum Gross Weight as a percentage of Class 1, the maximum individual axle weight limit, and a speed limit. |
| Rock Grading | The is the range of rock diameter given to define a Class of rock, typically including the largest size (D100) the average size (D50) and the nominal smallest size (D10). Rock Classes include Facing, Light, ¼ Tonne, ½ Tonne, 1 Tonne, 2 Tonne, 4 Tonne – catering for erosion protection in low to high water velocity. |
| Running Boards | Also called 'running planks'. These are a sacrificial wearing layer of timber placed on top of the primary structural timber decking. They can be replaced when heavily worn and keep the primary decking in good condition. |
| Seaward Access Bridge | Portion of the wharf accessway closest to the sea, farthest from the shoreline. This reference has been used specifically in reference the Kaingaroa Wharf which has a seaward access way comprising steel beams and timber deck. |
| Serviceability Limit State | This is a state that is expected to be reached several times in the life of most buildings in New Zealand. As a result, the level of design load that is used to check the SLS design criteria is relatively low. |
| Shoreward Access Bridge | Portion of the wharf accessway closest to the shore, farthest from the sea. This reference has been used specifically in reference the Kaingaroa Wharf which has a shoreward access way comprising timber beams and timber deck. |



| Enter Term | Enter Definition |
|-----------------------------|---|
| Substructure | The structural elements of a bridge that provide the connection to the ground. This would typically include piers, abutments, pile caps, piles and spread footings. |
| Superstructure | The structural elements of a bridge that span the water course. This would typically include beams, cross-bracing and decking. |
| Ultimate Limit State | This state represents the failure of the structure and its components usually when subjected to extreme values of actions or action effects. |
| Waterway Area | The available cross-sectional area of a bridge or culvert through which water can flow. For a bridge or box culvert this equates to the clear width x the clear height of the waterway. For a circular culvert this equates to $\pi \times \text{diameter}^2 / 4$ |

CIC Staff and Council are encouraged to advise of any terminology in this report that is unclear and would benefit from a plain English definition being added to this section. Stantec will update this glossary during each inspection cycle. Suggestions can be sent directly to bryan.peters@stantec.com.



1 Introduction

1.1 General

This report summarises the findings from the 2023-24 bridge inspection cycle. Inspections were carried out by Stantec staff in February and December of 2023 and included the inspection of all 25 structures (15 Culverts, 8 Bridges, 2 Wharves) on Chatham Island, and all 4 bridge structures on Pitt Island.

1.2 Bridge Inspection List

The 2023 bridge inspection list is made up of 29 bridge structures (including several major culverts, Owenga Wharf and Kaingaroa Wharf), with 25 located on Chatham Island and the remaining four on Pitt Island. Minor culverts with a waterway area (end cross-section area) equivalent to or less than 3.4m² are excluded from the inspections.

The new structure located at Gillespies has been added for this inspection cycle, and the unnamed culvert between Gillespies and Te One has been added to the list but will be inspected in the next cycle.

Appendix A contains the complete list of all bridge structures and their last inspection date.



Figure 1-1: Tuku Bridge (#13)



Figure 1-2: Waikawa Culvert (#23) – Port Hutt Road

2 Inspection Method

The bridge inspections were recorded on a modified version of the standard NZTA Bridge Inspection forms found in the TNZ S6:2000 specification. The form breaks down the bridge inspection into specific categories; general items, superstructure, foundations and sub-structure, and waterway.

These inspection forms use a numeric marking code to indicate the urgency and type of follow-up work required. The marking codes are presented in the following table.

Table 2-1: Marking Code

| Code | Description | Further Action |
|------|-------------------------|--|
| 0 | Not Inspected | Not required |
| 1 | Satisfactory | Not required |
| 2 | Monitor Next Inspection | Required |
| 3 | Routine Maintenance | Required (by FH, includes both structural and general maintenance) |
| 4 | Immediate Investigation | Required (by Stantec/FH to determine a preferred option) |
| 5 | Immediate Action | Required (e.g., closure or posting to prevent collapse) |

Photos were taken to record the general condition of each structure and to allow further assessment of any defects to be carried out in the office. A USB stick containing electronic copies of these photos is appended to this report.

Each inspection sheet provides a check box to advise if “Remedial work from last inspection (has been) completed”. Given the significant number of work items not completed or have reoccurred, we have provided a specific section in this report to review the issues that may be preventing work from being carried out and also to provide some ranking of which items should take priority in the event that funding, or resources are limited.

Relative location references are used in the inspection forms, with a graphical representation of the references shown in Figure 2-1:

- US/DS – Upstream or downstream of the bridge (flow comes toward the bridge from upstream and goes away from the bridge downstream).
- TL/TR – True left and true right of the river relative to direction of flow. If you stand looking downstream then TL and TR are on your actual left and right (Note that this differs from the RAMM definition, which is relative to facing the direction of increasing road chainage or route position).
- N/E/S/W, North, East, South and West – are commonly used where the direction of stream flow is not obvious i.e. the water is ponded (not flowing) and the adjacent land is very flat.

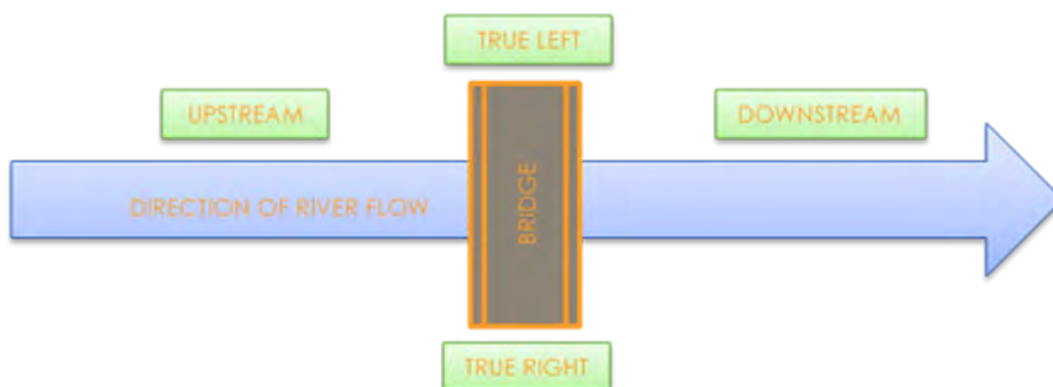


Figure 2-1: Relative Location References

3 Inspection Results

Results from the bridge inspections have been arranged into tables summarised by marking code. The following two marking codes have been included in this summary, which is contained in Appendix C :

- **(code 3) Routine Maintenance** – These issues shall be actioned by the Contractor and generally do not require additional input from the Network Consultant.
- **(code 4) Immediate Investigation** – These issues typically require technical input from the Network Consultant and are then actioned by the Network Contractor.

Of the 29 structures, 20 require routine maintenance and 3 require immediate investigation (note that not all structures require maintenance or investigation).

The following sub-sections detail the general issues affecting several structure groups as well as individual structures requiring specific consideration.

3.1 Steel Protective Coating – Goldseal

In 2009 Goldseal was adopted for the protection of all steel beam bridges on the Chatham Islands. To date, the Goldseal has not been fully effective due to a number of factors. The following table provides a record of the timeline:

Table 3-1: Goldseal Timeline

| Year | Comments |
|------|---|
| 2009 | All seven steel beam bridges with Goldseal by the First Applicator. The Goldseal began to fail shortly after. |
| 2010 | The First Applicator returned to address these defects. The Goldseal continued to fail. |
| 2014 | Goldseal arranged for a Second Applicator, to return to the Chathams and reinstate any steel bridges with defective coating. Stantec limited this work to the four steel bridges that are of long-term value to preserve and maintain. The other three bridges are in good condition (with minimal need for Goldseal) or were likely to be replaced in the near future. |
| 2015 | Follow-up inspection found that the Goldseal was still degrading and in various states of deterioration, varying from “acceptable” to “general failure” (on the Lower Nairn Bridge). |
| 2017 | In April, the second Applicator returned to address the defects on the Lower Nairn Bridge. In November, all bridges were inspected and the Goldseal was continuing to show signs of failure. |
| 2019 | In November, all bridges were inspected and the Goldseal was continuing to fail varying from “acceptable” to “general failure” (on the Lower Nairn Bridge). |
| 2020 | In March, the Second Applicator returned to address the defects on the Lower Nairn Bridge. |
| 2021 | In October, all bridges were inspected and the Goldseal was continuing to fail varying from “acceptable” to “partial failure”. |
| 2023 | In December, all bridges were inspected and the Goldseal was continuing to fail varying from “acceptable” to “partial failure” (on the Lower Nairn Bridge). |
| 2024 | The Goldseal licence has now been sold to a Third Applicator. |

Some Goldseal condition observations from the 2023 inspection are summarised in Table 3-2. There are currently 4 structures which have been treated with the Goldseal product, and are therefore susceptible to this particular defect, but only the following 3 structures represent critical risk to the infrastructure.



Table 3-2: Goldseal Condition Summary

| No | Bridge Name | Goldseal Condition | Comments |
|----|--------------|--------------------|---|
| 15 | Te Awainanga | Acceptable | Good condition, some minor spots failing. |
| 19 | Hawaiki | Acceptable | Good condition, some minor spots failing. |
| 20 | Lower Nairn | General Failure | Moderate breakdown around underlying rust scale on all spans. Monitor for progression to general failure. |

The Lower Nairn bridge (#20) is the most critical bridge link. The coating failures are typically observed occurring along the top and bottom flanges of the beams on all spans with larger areas of significant failure on spans 2, 3 and 4. The photos below show examples of the typical surface failures from this and the previous inspection.



Figure 3-1: Lower Nairn (#20) Goldseal failing from the 2021 inspection



Figure 3-2: Lower Nairn (#20) Goldseal failing from the 2023 inspection

The 10-year guarantee for the current application expires in 2024 and we consider that the current coating is in sufficient condition to have reached the end of this guarantee. We have now contacted the new Third Applicator (Goldseal Group/Zac MacDonald) to begin discussions on what options are available for continued protection.

3.2 Bridge Capacity Register

In 2009/2010 construction of the wind generators near Owenga highlighted the need for all CIC bridge structures to be assessed for load capacity to determine if they have Class 1 capacity, and overload capacity. By 2017 the structural data had been collected for all of the bridges and bridge culverts on the Chatham Islands network, and their load limits recorded. The condition data for all of the bridge and bridge culvert structures on the Chatham Islands network is kept complete and up to date at each subsequent bridge inspection.



For bridges the structural data includes:

- Beam dimensions
- Beam spacing
- Clear span
- Location of cross bracing
- Decking and kerb dimensions

For culverts the structural data includes:

- Internal height and span dimension
- Plate/wall thickness
- Corrugation pitch and depth
- Presence of ring beams
- Bolt pattern and spacing

Table 3-3 summarises the capacity status of bridge structures on the Chatham Islands. A more detailed table is contained in Appendix E . This appendix groups the structures in route order for easier checking and processing of particular routes.

Table 3-3: Bridge Capacity Summary

| Description | No. |
|--|-----|
| Structures with verified capacity of HN-HO-72 | 14 |
| Structures with verified capacity of Class 1 | 9 |
| Structures with verified capacity of < Class 1 (require posting) | 5 |
| Structures closed (Kaingaroa Wharf) | 1 |

We propose that structural capacities are reviewed every 10 years (or sooner if significant deterioration is identified). The majority of structural data was gathered between 2012 and 2016. If 2012 is used as the start date, a revision of capacities should be scheduled to take place over the period from 2022 to 2026. The work required to reassess each structures capacity can be minimised as follows:

- If there is no deterioration recorded, then a simple check of design guidelines and material standards will suffice. Any significant changes in those guidelines and standards may require an update of the calculations.
- If there is some deterioration recorded, then the calculated capacity will be reassessed in accordance with current guidelines and standards with deterioration taken into account.

3.2.1 Posted Structures

There are currently five bridge structures that are required to be posted at a reduced load capacity, these are presented in Table 3-4.

Table 3-4: Posted Bridge Structure Summary

| Road Name | No | Bridge Name | Weight Limits | | Maximum Speed Limits |
|--------------------------|----|----------------------|--------------------------------|--|----------------------|
| | | | Maximum Weight on any One Axle | Gross Weight (maximum sum of axle weights) | |
| Maipito Road | 05 | Maipito Bridge | N/A | 50% of Class 1 | N/A |
| Port Hutt Road | 23 | Waikawa Culvert | N/A | 50% of Class 1 | N/A |
| Flower Pot to Glory Road | P2 | Waipaua Bridge | N/A | 60% of Class 1 | N/A |
| North Head Road | P3 | North Head Bridge | N/A | 70% of Class 1 | 10 km/h |
| Flower Pot to Glory Road | P4 | Thistle Clear Bridge | N/A | 80% of Class 1 | 10 km/h |

All five structures that require posting have been formally posted. This process includes:

- Installation of standard 'Bridge Load Limit' signage on both road approaches.



- Annual notification of a list of the posted structures and their posting limits in a local and readily available publication. This advertising is scheduled to be carried out by Stantec in the first quarter of each calendar year.

Of these five bridge structures, one can be removed from the list without replacement if the following recommended improvement works are carried out.

- Waikawa Culvert (#23) on Port Hutt Road requires additional cover up to 0.6m min (currently 0.34m). Works are programmed to increase the pavement cover during 2024.

3.2.2 Overweight Permit System

Stantec, on behalf of Council, have developed a system for processing overweight permit vehicles. This system is based on setting a capacity for each structure based on Vehicle Gross Index (VGI) and Vehicle Axle Index (VAI). The VGI and VAI provide a numeric ratio indicating each structures capacity relative to standard Class 1 loading. The configuration of each overweight vehicle application is then assessed for VGI and VAI to determine if each structure has enough capacity for the vehicle to pass.

Vehicles that fall within the Class 1 limit can cross any structures that are not posted. For posted structures the vehicle operator is obligated to determine whether their vehicle falls within the posted restriction, or alternatively they can contact Stantec or CIC for verification.

3.3 Key Issues Requiring Engineering Input

The following section details the most important issues requiring engineering input following the February and December 2023 Pitt Island and Chatham Island bridge structures inspections.

3.3.1 Waikawa Reduced Cover and Batter Stability

Waikawa Culvert (#23) was installed in 2010 by the Contractor, without Stantec having design input to the sizing and installation of the new culvert. From Stantec's first inspection of this structure, it was identified as being overly short and having very steep batters prone to instability. Allowing for a minimum cover depth of 0.6 m, a nominal 1.5H:1V batter slope, 2 x 4 m shoulders and a 6 m minimum carriageway, the culvert barrel length should have been at least 22 m. The installed culvert has a total length of 10m.

In the 2011/12 inspection cycle, the minimum cover was found to be 0.42 m. Current NZ standards require a culvert of this type and size to have a minimum cover of 0.6 m to spread the live load effectively and reduce the likelihood of localised compression failure. In September of 2019 this structure was posted at 50% Class 1 as a temporary safeguard. In the latest inspection the minimum cover was found to be only 0.34m. This lack of cover can be seen in **Figure 3-3**.

In February 2022 the catchment assessment for this structure was revised with the following:

- Importance Level 1 adopted for low volume rural roads not essential to post disaster recovery.
- SLS Q25 = 13.6m³/s current or 18.3m³/s including climate change to 2101
- ULS Q250 = 23.5m³/s current or 31.6m³/s including climate change to 2101
- The existing 2.4m culvert will pass the non-climate change SLS with no freeboard, and will pass the non-climate change ULS with 0.5m overtopping. This flood capacity is marginally adequate for a 20-30 year design life, but does not comply with the NZTA Bridge Manual limits for a 100 year design life.
- A proposed new 3.0m culvert would pass the SLS with 0.5m freeboard (including climate change), and will pass the ULS with 0.5m of overtopping (including climate change). This flood capacity complies with NZTA Bridge Manual limits.

In 2021 an overweight permit for Satherley Transport was processed, to allow travel on Port Hutt Road to Stoney Crossing Quarry over this culvert. The permit was issued on the basis that Stantec would instruct FH to increase the cover depth over this culvert to meet the 0.6m minimum prior to travel. Satherley did not use this route and cover depth was therefore not increased.

Works are currently programmed to construct gabion basket headwalls which will allow for the placement of the required additional fill over this culvert.





Figure 3-3: Waikawa (#23) cover issues upstream view

3.3.2 Owenga Wharf General Condition

In the 2019 and 2021 inspections the following issues were noted:

- Rope netting failing
- Geogrid trial patch has failed, partially due to wilful vandalism
- Water blasting of the deck did not seem to improve the skid resistance but may be useful if it is done with greater regularity
- One of the east side bollards has excessive movement/flex
- Several walers and cross brace members are failing due to teredo worm attack
- Tyres on fenders have compressed allowing boats to impact directly onto the pile
- End fenders and rub strips are broken and damaged at the north end launch platform

Some of these issues are highlighted in the photos below.



Figure 3-4: Owenga skid cladding failing



Figure 3-5: Owenga damage to bollard pile



Figure 3-6: Owenga launch platform damage



Figure 3-7: Owenga Toredos worm damage

In 2023 several issues were addressed with the following items of work actioned (see photos below):

- Water blasting of deck to remove dirt/mud (Fulton Hogan)
- Repair east side bollard (Hunter Civil)
- Damaged low level walers removed and cross bracing lifted above high tide (Hunter Civil)
- Piles recesses reclad with PE sheeting and grouted to limit teredo entry (Hunter Civil)
- Additional tyres added to main eastern fender (Hunter Civil)
- Launch platform repaired and protected (Hunter Civil)



Figure 3-8: Owenga water blasted deck



Figure 3-9: Owenga repaired bollard pile



Figure 3-10: Owenga additional tyres on fender



Figure 3-11: Owenga lift bracing and PE reclad





Figure 3-12: Owenga launch platform repaired



Figure 3-13: Owenga pile s/steel reclad

In the 2021 inspections this structure had a weighted condition rating of 'very poor'. With the work carried out in 2023 the condition rating has been significantly improved and is now 'average'.

3.3.3 Kaingaroa Wharf Evaluation & Make-Safe

The existing Kaingaroa Wharf (#W2) was built in 1984 and has been assessed in recent years as being in very poor condition with rapid ongoing deterioration. Ownership of this wharf has to CIC, with the intention of accessing public benefit entity funding to maintain and eventually replace the aging structure.

Stantec have inspected the Kaingaroa wharf several times since 2015 to assess the structural condition and identify defects, prompting the formal closure of the structure. Local fishermen continue to use the structure given the lack of any alternative options being available. The 2021 inspection also included:

- Close-up underwater inspection of the foundations, and
- Close-up boat inspection of the mooring section underside

Stantec prepared a report titled "Kaingaroa Wharf Condition Assessment" in September 2021 that provided a detailed assessment of the entire structure. The assessment of the various wharf segments indicated the following issues:

| | |
|--------------------------------|---|
| Shoreward access bridge | <ul style="list-style-type: none"> ▪ Heavy corrosion of steel fixing ▪ Significant pile section loss from Tored worm infestation ▪ Poor support to trolley ramp ▪ Shoreward foundations are undermined and unstable |
| Seaward access bridge | <ul style="list-style-type: none"> ▪ Steel beams are suffering from early section loss ▪ Beam hold-down fixings are heavily corroded ▪ Concrete founding is acceptable but likely to have chloride contamination ▪ 40m of damaged handrail |
| Mooring platform | <ul style="list-style-type: none"> ▪ Steel beams and transoms are suffering from significant section loss ▪ Timber pile caps have significant cracking ▪ Over-loading from cray pots, fish bins, concrete blocks and skiffs ▪ Fender system is in a poor but usable condition |
| Underwater foundations | <ul style="list-style-type: none"> ▪ Minor undermining of some concrete sockets ▪ Fender piles are not fixed at the base ▪ Concrete stems have minor cracking but are generally intact |

A list of proposed short-term works was provided in the September 2021 report, and the following items were completed by Hunter Civil in 2023:

| | |
|--------------------------------|--|
| Shoreward access bridge | <ul style="list-style-type: none"> ▪ Steel strapping of critical connections ▪ Jacketing and cross-bracing of the pile sets ▪ Adding additional supports to trolley ramp ▪ Back filling and rock protection of the shoreward foundations |
| Seaward access bridge | <ul style="list-style-type: none"> ▪ Strengthen or replace beam HD fixings ▪ Repair damaged handrail |
| Mooring platform | <ul style="list-style-type: none"> ▪ Fender rebuild and deck maintenance |



The long-term recommendation from the September 2021 report was for a full replacement of the structure, with an expected total cost of \$4.0M. As well as the current 2 yearly detailed inspection, Stantec also check this structure at 3 monthly intervals to look for any indications of imminent failure – e.g. movement, deflection, bounce, noise. And as for Owenga Wharf, a periodic underwater inspection is also carried out.

Some of the critical issues for Kaingaroa Wharf are highlighted in the photos below, along with photos of the recent upgrade and repair works completed by Hunter Civil.



Figure 3-14: Kaingaroa poor ramp support



Figure 3-15: Kaingaroa upgraded ramp support



Figure 3-16: Kaingaroa poor condition piles



Figure 3-17: Kaingaroa upgraded piles



Figure 3-18: Kaingaroa upgraded timber fixings



Figure 3-19: Kaingaroa upgraded HD fixings





Figure 3-20: Kaingaroa damaged handrail



Figure 3-21: Kaingaroa repaired handrail



Figure 3-22: Kaingaroa heavy section loss



Figure 3-23: Kaingaroa heavy section loss



Figure 3-24: Kaingaroa fender and stem condition



Figure 3-25: Kaingaroa undermined founding

During the 2023 inspection, a meeting was held with local users to discuss their perceptions and understand their ongoing concerns. The meeting attendees were generally concerned about the condition of much of the decking material, and the damaged fender piles to the south of the structure.

The fender repairs were omitted from the original package of MakeSafe work as it initially exceeded the budget cap, the works completed to date have cost less than initially expected and works to repair the damaged fenders will be undertaken shortly. Replacements for weak and damaged deck planks will be made where the replacements are straightforward and inexpensive.

Photos of the damaged fender and decking are shown below:



Figure 3-26: Kaingaroa southern fender (2015)



Figure 3-27: Kaingaroa damaged decking (2023)

3.3.4 Te Awainanga Deck Cleats

Major maintenance on the Te Awainanga Bridge (#15) was carried out prior to the 2023 inspection, including the addition of extra deck hold-down cleats, addition of more screw/nail fixings to hold down the running boards, and partial clearing of debris from the TR abutment.

From this inspection the following defects require further monitoring, or repair:

- Poor condition handrail and debris buildup on the deck
- Excess debris buildup on the TR abutment seating, and
- Deck wearing and movement

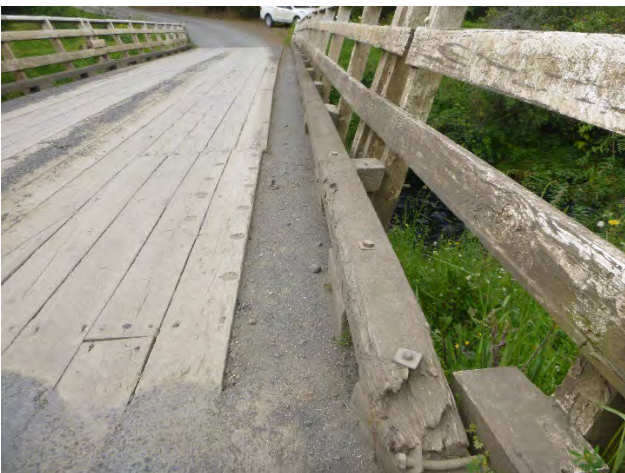


Figure 3-28: Te Awainanga handrail and deck debris



Figure 3-29: Te Awainanga debris on TR abutment



Figure 3-30: Te Awainanga debris on TR abutment



Figure 3-31: Te Awainanga deck wear

3.3.5 Culvert Cover Compliance

During the measure-up of the bridge structures in 2011/2012, it was found that some culverts had inadequate cover depth, placing some culverts at risk of poor load spread and localised crushing.

The current standard (AS/NZS 2041.1:2011) requires a minimum cover depth of 600 mm, with additional cover requirements for larger diameter culverts. Figure 3-32 shows the culvert cover requirement calculations set out in the standard.

- (i) 600; or
- (ii) $\frac{d_h}{6} \times \sqrt{\frac{d_h}{d_v}}$; or ... 2.5.3(1)
- (iii) $400 \times \left(\frac{d_h}{d_v}\right)^2$... 2.5.3.(2)

(d_h = maximum horizontal dimension or span, d_v = maximum vertical dimension or height)

Figure 3-32: AS/NZS 2041.1:2011 standards for culvert cover depth

In the previous revision of the standard (from 1998), this cover requirement is simplified as 0.6 m or 1/6 the span, whichever was the greater of the two. As all but one of the structures has a 3.6 m span or less, it is sufficient to use a simplified minimum cover requirement of 0.6 m for all culvert structures.

The minimum cover is usually measured at the upstream road shoulder. This is typically where the culvert barrel will sit higher, as the culvert would be sloped to match the waterway grade and the road shoulders have the thinnest pavement depth, resulting in the minimum cover depth at the upstream shoulder. If the road formation has a significant super-elevation then both the upstream and downstream culvert ends should be checked for minimum cover.

As 0.6 m is given as a minimum, it is recommended that a 0.7m nominal cover depth is targeted wherever possible on unsealed roads to allow for material loss with time. There is a further preference for 0.9m of cover over new structures at installation to mitigate for accelerated material loss in newly placed unbound pavements.

There are 15 structures classed as culverts. Of these there are currently three that are deemed to have less than the minimum cover required (0.6 m). These structures are listed in the table below with results of the cover compliance check during this inspection cycle.

Table 3-5: Culvert Cover Summary and Recommended Actions

| No | Name | Current Cover | Recommended Actions |
|----|----------|---------------|--|
| 7 | Kaiwhata | 0.55 m | No change from previous measure (+0.0) but is still marginal. Monitor next inspection. |
| 23 | Waikawa | 0.34 m | Increase from previous measure (+0.08) but is still significantly below the minimum cover. Option progressed to install gabion basket headwalls along the road edges to allow for increased cover without loss of road width. Currently posted at 50% Class 1 due to lack of cover. Monitor next inspection. |
| 26 | Waitaha | 0.52 m | Increase from previous measure (+0.04). New culvert installed in 2021 but cover at US shoulder is marginal. Monitor next inspection. |

3.3.6 New Minor Culvert Sizing and Installation Procedure

During the 2015/16 Bridge inspections, several minor culverts were identified that had been installed by the previous Contractor with little or no engineering guidance. Several culverts were found to be well below the required size for their given catchment area. In addition to marginal or sub-standard flood capacity, it was also found that many of these culverts had been poorly installed with the following typical defects:

- Overly steep batter slopes and unstable road formation
- Poor control of compacted fill resulting in culverts being pushed out of shape
- Upstream invert levels positioned too high restricting flow capacity
- Less than the minimum depth of cover providing poor wheel load spread, and
- Excessive fill heights with excessive soil dead loads

Stantec have carried out generalised catchment and structural calculations with the aim of developing simple guidelines that will prevent repetition of the issues above. Guidelines for sizing and installation of minor culverts have been previously established, and these include:

- Culverts are sized based on catchment area and waterway type. Initially this should be determined by engineers but may be carried out directly by the contractor with engineering review.
- For catchments larger than 1.1 km² with natural waterways (with typically >2% bed grade) and located on Grade 1 or Grade 2 roads, a site-specific design should be carried out by engineers.
- A typical installation detail is provided giving minimum cover depth, alignment of invert levels, batter slopes, minimum barrel length and standard carriageway widths.

This procedure should reduce the frequency of poor installations, while also providing clear guidelines on the sizing and installation of minor culverts. When an emergency installation or replacement is required, the Contractor is more likely to select a suitable culvert diameter or know where they may need to add a supplementary culvert at a later date.

This culvert sizing procedure has been in use since 2017 and found it to be consistent and typically conservative.

3.3.7 Prioritisation of Key Issues

Table 3-6 provides a summary of the key issues, along with an indication of priority. Priority is given to the structures deemed to carry a higher risk and/or consequence of failure.

Table 3-6: Prioritisation of Key Issues and Actions

| No. | Name | Priority | Issue/ Work Required |
|-----|-----------------|----------|--|
| 27 | Kaingaroa Wharf | 1 | Significant deterioration – make safe works complete, option to rebuild southern fender under consideration and source funding for replacement |
| 23 | Waikawa | 2 | Lack of cover – increase to 0.6 m minimum and remove posting |
| 26 | Waitaha | 3 | Lack of cover – increase to 0.6 m minimum |



4 Works Not Completed and Repeat Defects

In each subsequent inspection cycle, it is noted whether the work recommended in the previous report has been successfully rectified. There are various reasons why proposed work may have re-occurred or not have been rectified, including limitations to funding and resourcing, the availability of specialist contractors to undertake technical repairs, and the on-going or repetitious nature of some of the defects identified during inspections.

This section provides a summary of the identified defects which are present from the previous inspections, some discussion on why these repairs are required, specific detail of what works are typically required, and recommendations on what improvement can be made to our systems and processes to improve this issue. It aims to provide the Contractor and Consultant Engineers with improved guidance on typical missed work items or repeating defects to address potential quality issues and reduce the time taken to complete identified improvements or repairs. Further discussion may be required between Council Engineers and the Contractor to address critical issues. Issues affecting the timely correction of defects may include the following:

- Lack of funding
- Lack of local resourcing and the need to import mainland resourcing
- Setting of priority and program of works
- Grouping or delaying of common work items to improve value for money

Continuous work will be put into improving these issues with the aim of maximising the number of recommended work items being completed before the next inspection cycle takes place.

Appendix C contains a summary of all work proposed as Routine Maintenance. On the right-hand side is a column that indicates where previous recommended work items have re-occurred or are still present during the current inspection.

The following points briefly summarise the recommendations:

- From this inspection cycle there are 20 structures with identified **Routine Maintenance** required, with a total of 34 specific defect items to be rectified.
- Of these 34 work items, there are 14 that have not been completed or have returned to being defective since the previous inspection cycle.
- For comparison, in the previous inspection cycle there were 36 total items of which 19 items of work were not completed or had returned to being defective from the previous inspection cycle.

“Work not complete / repeat defects” is grouped, ranked by importance, and quantified in Table 4-1 , which provides a brief description and explanation of why each item is significant. The importance is also indicated on the right-hand side of the Routine Maintenance table in Appendix C.

The importance ranking is intended to provide an indication of priority of which items should be addressed urgently or otherwise. These are listed below with some commentary.

- A ranking of “High” is given to items that could lead to a short-term structural failure or significant injury accidents.
- A ranking of “Medium” is given to items that could lead to medium-term deterioration or partial structural failure.
- And a ranking of “Low” is given to items that affect components that can be periodically replaced and are unlikely to cause a structural failure.

Also provided is a recommendation of indicative timeframes for these tasks to be rectified.



Table 4-1: Work Not Completed from Last Inspection

| Work Type – Description | Importance | Number | Response Time (months) |
|---|------------|--------|------------------------|
| Routine Maintenance | | | |
| Deck and running boards – repair, replace or fix decking components (damaged decking may allow wheel penetration or snagging of passing vehicles with a high risk of injury). | High | 5 | 1 |
| Superstructure repair – damaged or compromised sub-deck components that need repair, re-fixing, or replacement. | High | 2 | 3 |
| Safety compliance – rectify barrier detailing, fixing, general arrangement to achieve correct function (barrier is a safety component that left unrectified could result in injury or death). | High | 7 | 1 |
| Foundation repair – damaged or compromised substructure components that need repair, re-fixing of replacement. | High | 0 | 3 |
| Approach levelling – reduce approach road levels to match deck level (this prevents high impact loading and accelerated wear and tear). | High | 0 | 3 |
| Decay prevention – remove soft timber or dirt/debris and install additional members to block moisture (decayed timber/dirt retains moisture and increases the rate of decay in adjacent good timber). | Medium | 5 | 3 |
| Rock protection – place rock in areas of undermining or erosion around abutments and foundations (ongoing erosion may lead to settlement or structural damage). | Medium | 2 | 3 |
| Waterway clearance – remove significant vegetation from waterway (waterway clearance has a dual purpose, to improve flow capacity of the waterway, and to allow access for inspection). | Medium | 5 | 6 |
| Dirt/gravel on deck – remove material build-up from deck surface (dirt/gravel retains moisture and increases the rate of decay in the deck planks and running boards). | Low | 5 | 6 (repeat) |
| Painting handrails – clean and paint (painting of timber handrails has a dual purpose, firstly, to extend the service life, and secondly, to improve night-time visibility). | Low | 0 | 6 |
| Signage – missing or damaged signage to be replaced or re-fixed. Signage provides guidance for road users that has an immediate impact on reducing risk and potential harm. | Low | 2 | 6 |

4.1 Dirt and Gravel on Bridge Decks

Where dirt and gravel are reported as not having been removed from the deck, our assessment was based on comparing photos of this and the previous inspection. It is possible that this work was completed, and that the dirt or gravel has simply reformed in approximately the same place and quantity. If this is the case, then this work may be required more frequently, and a photo and completion date should be recorded in RAMM.

This work should ideally be carried out with a high-pressure water blaster (>3000 psi) to ensure all hard-to-reach material is removed. A six-monthly frequency is recommended for this work to be carried out, ideally during late autumn and again in late spring.



For the Owenga Wharf a six-monthly frequency is also recommended. Given the wharf provides a working surface for fishermen this structure may benefit from additional water blasting to prevent the decking from becoming a slip hazard during the winter months. The Contractor should continue to monitor the deck condition during the winter months and carry out further cleaning as required.

The images below show typical examples of dirt and gravel build-up between running boards, and build-up on a deck surface.

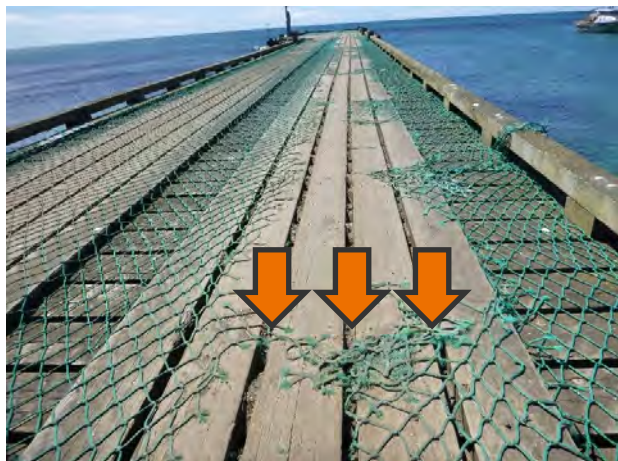


Figure 4-1: Typical dirt/gravel build-up between running boards



Figure 4-2: Typical dirt/gravel build-up on standard plank decking

4.2 Decay Prevention

The rate of decay of timber members can be significantly reduced by removal of all excess material that may be retaining moisture. This includes removal of accumulated dirt or debris and any decayed or softened timber. This work should ideally be carried out with a high-pressure water blaster to ensure all soft material is removed. In general, all sound timber will remain intact under water blasting and only the soft redundant timber will be removed. If the amount of removed timber is significant, then the freshly exposed timber surface should be coated in a timber preservative.

Removal of all soft and semi-soft timber also allows for inspection to accurately assess how much sound timber is remaining and whether the replacement of the structural member is required. The photos below show typical examples of decayed timber in a nailing strip and in a pile cap.



Figure 4-3: North Head (#P3) no backing boards



Figure 4-4: North Head (#P3) no backing boards

The photos below show typical examples of gravel and dirt debris build-up on a beam seating that accelerate steel corrosion and timber decay.



Figure 4-5: Kiringe (#12) debris on bearing shelf



Figure 4-6: Te Awainanga (#15) debris on bearing shelf

4.3 Deck and Running Boards

Vehicles in the Chatham Islands typically travel at moderate to high speed, as drivers are generally very familiar with the road geometry. Any loose or protruding deck planks or running boards have the potential to snag passing vehicles causing loss of control with significant damage to the vehicle, the bridge deck, and injury to the vehicle occupants.

All deck elements need to be secured correctly using the specified fixings:

- Deck planks should be secured to underlying beams (or nail strips) using 2 No. 175mm galvanised spikes at each crossing. Drive spikes at a slight angle towards the centre of the beam, 50mm from the edge of the plank and flush with deck level.
- Running boards should be secured to underlying deck planks using 6mm \varnothing x 130mm Tek screws into every second deck plank (nominal 400 mm centres) and 2 No. Tek screws at the ends of each running plank.
- Deck baulks should be properly secured to the supporting beam by purpose made hold-down cleats at specified spacings. Typically, 0.6m centres on alternate sides of the beam flange (unless specified otherwise).
-



Figure 4-7: Washout Creek (#3) broken and loose deck planks



Figure 4-8: Maipito (#5) loose running boards



Figure 4-9: Awamata (#10) loose running boards



Figure 4-10: Hawaiki (#19) loose running boards

4.4 Painting Handrails

Handrails are generally painted to prolong the timber's life and to also provide night-time visibility for traffic. Work records suggest that handrails are being painted, but in places the paint deteriorates quickly and is in poor condition again by the time of the next inspection. A good example of this (now rectified) was noticeable during the 2017 inspection of Te Awainanga Bridge, where the figures below show the before and after photos of painting carried out in 2016, but with no obvious improvement in condition.



Figure 4-11: Te Awainanga (#15) handrails in 2015, before painting in 2016



Figure 4-12: Te Awainanga (#15) handrails in 2017, after painting in 2016

The inspector's opinion is that the paintwork may be deteriorating quickly due to inadequate surface preparation. Surface preparation should therefore include the following as a minimum:

- Water blasting to clean dirt from all surfaces.
- Hand tooling to remove any loose paint and provide feathered edging to timbers to allow paint adhesion.
- Application of a suitable exterior primer to all bare timber surfaces.
- Application of two coats exterior acrylic topcoat to all surfaces.
- Use a high-quality exterior paint and follow all manufacturers specifications (in particular – surface preparation, application weather conditions and recoat time).

A correctly applied and well-maintained paint coat should last for 8-10 years. As part of the maintenance regime handrails should be cleaned annually using light water blasting (1500 psi) to remove any dirt build-up.

4.5 Rock Protection

Rock protection may be required around bridge structure foundations to prevent water from undermining the foundations of the structure. For bridges this erosion can destabilise the abutments and damage the approach fill. For culverts this erosion can destabilise the founding and damage the cover material.

In general rock protection should be installed under the following guidelines, unless specified otherwise:

- Rock Grading D(diameter)50 = 0.30 m (D10=0.15 m and D100=0.40 m).
- Rock should be hard, dense, and durable. Use angular material with a width to length ratio <3.
- Place carefully to avoid damaging the rock (and adjacent structure) and to achieve good interlock.
- Rock placed around abutments should be keyed into and below the stream bed level.
- Rock placed at culvert outlets should fill the bed to match the culvert invert. Unless noted otherwise this rock should extend downstream for the culvert span dimension, or further as required to fill an obvious scour hole.

Rock grading refers to the mix of rock size i.e., minimum (no more than 10%) of 0.15 m diameter, average of 0.3 m diameter, and maximum 0.4 m diameter. A good grading will assist in achieving a good interlock between rocks and finished appearance to the rock work. The rock grading specified above is a "Facing" rock class suited to waterway/locations with relatively low flow velocity not exceeding 2.6m/s. In locations where erosion potential is considered greater, this should be referred back to Stantec and a larger rock class (grading) can be specified.

Figure 4-13 shows a typical outlet scour hole. This is formed due to high velocity water exiting the culvert and washing small bed material downstream. On the positive side this sort of hole can provide better energy dissipation, however, on the negative side the scour hole can migrate upstream and undermine the culvert barrel. In this instance we have recommended rock protection to fill this scour hole, decreasing the erosion risk to the culvert but also increasing the risk of channel and bank erosion further downstream.

Figure 4-14 shows the rock protection at the Waikato Culvert (#8) on airbase road. Rock protection has been placed at slopes of up to 1:1 which is not ideal. In this instance FH has done some minor adjustments and we will monitor for any further signs of movement.



Figure 4-13: Whangatete (#1) typical scour hole at outlet



Figure 4-14: Waikato (#8) rock placed too steep

4.6 Waterway Clearance

Waterway clearance is typically required to optimise the flow capacity of the structure, and also allows improved access to the structure for inspection of the waterway and foundations. In general terms the waterway clearance for a culvert or bridge should extend to cover the following area:

- Clear vegetation for 5m upstream and downstream of the culvert inlet/outlet.
- Clear vegetation for 2m either side of the culvert barrel.
- Clear vegetation from the culvert back to the road edge.
- For bridges, clear vegetation from under the bridge and for 10m upstream and downstream (for the width of the bridge).
- The clearance area should be roughly rectangular based on the above extents.
- Vegetation should include anything of shrub size or larger. Long grass is considered ok as it will lie flat during flood flows and will generally not prevent access for inspection.



Figure 4-15 shows vegetation on the upstream inlet to Matakatau culvert (#9). Vegetation this close to the inlet makes it more difficult for water to enter, reducing the flow capacity and increasing the risk of overtopping during a flood event. Large vegetation can also break loose and physically block the culvert barrel.

Figure 4-16 shows vegetation on the inlet to Awatotara culvert (#11) (not yet rectified). Vegetation this close to the outlet can prevent water from entering the downstream channel causing a higher than usual water level, reducing the culvert flood capacity and increasing the risk of over topping during a flood event.



Figure 4-15: Matakatau (#9) waterway clearance required



Figure 4-16: Awatotara (#11) waterway clearance required

It is known that the Contractor has attempted to clear the vegetation that surrounds the Awatotara culvert (#11) but was unable to obtain permission from the adjoining landowner to do so. Further discussion between Council, Council's engineers, and the landowners is required to facilitate access to the culvert for clearance.

4.7 Approach Levels and Potholes

Variations to approach levels can occur where general traffic has tracked pavement material from the approach onto the bridge deck. This results in adverse effects to the bridge, including:

- Excess approach material on the deck increases dead load and reduces available live load capacity.
- Excess approach material on the deck retains moisture and promotes decay in timber components.
- Approach slope terminating on the deck results in very high impact loading and increased wear and tear on the super-structure.
- Approach slope terminating at the abutment promotes gravel migration onto the deck and often leads to high impact loading on the structure (as gravel ramps onto the deck).

If these defects are left uncorrected the affected bridge components will wear more quickly, making their remaining useful life more difficult to estimate. This may simply result in more regular component replacement but could also result in a sudden failure with significant damage occurring to the bridge, vehicle, and occupants.

Ideally any vertical road geometry should terminate 2-5 m before each abutment on the approach formation, with a simple transition to tie in with the typically flat deck geometry.

Potholes often form on bridge approaches where rainfall runoff tends to pool, and vehicle wheels impact the pavement. This is exacerbated where the road level is different from that of the bridge deck. This similarly can result in very high impact loading from passing vehicles, and if left unrepaired will continue to get larger and cause damage to the supporting abutment.

Typical examples are shown below.



Figure 4-17: Waipaua (#P2) approach potholes



Figure 4-18: Thistle Clear (#P4) approach potholes

4.8 Bridge Railing Compliance

Sight rails and handrails provide the function of highlighting the available carriageway width or waterway hazard, and preventing pedestrians from falling into the waterway, but do not provide any redirection of vehicles during a crash. Safety barriers (W-beam guardrail) provide the functions of a sight rail, with the added function of redirecting an uncontrolled vehicle from leaving the road or bridge carriageway.

On the Chatham Islands there are a relatively small number of bridge railing types in use on bridges and culverts across the island:

- Timber kerbing only
- Timber kerbing and handrail
- W-beam guardrail

It is a common issue to see insufficient bolting from the kerb blocks into the decking below. Typical kerb block bolting should consist of 150x100x250 mm timber blocks at 1.5 m maximum centres held in place with 2 No HDG M16 bolts, nuts and standard 50x50 mm square washers top and bottom.

Handrails are also in need of constant maintenance to address typical wear-and-tear faults, including:

- Broken or decayed rails
- Broken/corroded fixings
- Broken/corroded top strapping (refer to Figure 4-20)

The safety barrier installed on Te One culvert (#18) is the only W-beam barrier installed on a structure on the islands. The barrier system is designed to function at a height of 790 mm (+/-20 mm) and the terminal design for a height of 730mm (+/-20 mm) from road level to top of rail. This guardrail tends to sit at a height varying from 0.70-1.00m. Although this is not ideal, the adjacent unsealed road and the regular maintenance grading of the road surface makes it difficult to keep a constant height. Future grading and additional running course should aim to maintain the cut-fill balance and barrier height.

Typical examples of railing defects are shown below.





Figure 4-19: Lower Nairn (#20) rusted kerb bolts



Figure 4-20: Washout Creek (#3) inadequate fixings

4.9 Structural Maintenance

Structural maintenance includes the following typical repairs:

- Reinstall and/or repair of cross bracing (as per Figure 4-21)
- Deck clamp tightening and/or replacement
- Culvert cover rectification (0.6 m minimum / 0.7 m nominal)
- Replacement of decayed structural components (beams, decking, pile caps)
- Providing or replacing soil retaining members (headwalls, backing boards)

Given the importance of structural components, it is critical that the Contractor has a clear understanding of the work required. Generally, a like-with-like repair is acceptable, so a site visit will be required to verify existing detailing, member sizes, materials, and fixings. In some instances, further detail has been provided by Stantec, either on the inspection form or within this report. However, if the detailing of the required repair is insufficient or ambiguous the Contractor should contact Stantec to discuss the work and obtain further explanation.



Figure 4-21: Maipito Bridge broken cross brace rod

5 Major Improvements

5.1 Completed

Since the last inspection the following significant works have been completed:

- Whangamoe (#2), original steel beam / timber deck bridge replaced with an aluminium pipe culvert. New structure provides full HN-HO-72 capacity and low maintenance.
- Te Awainanga (#14), replacement and upgrade of multiple deck clamps.
- Additional culvert added at Gillespies (#25).
- Installation of new culvert "TBC Unnamed" (#24) between Gillespies (#25) and Te One (#18).

5.2 Proposed

Major improvements that are likely to occur over the coming two years before our next inspection cycle are:

- Waikawa (#23), additional cover (0.6m min) with improved headwalls / gabion retaining walls.
- Maipito (#5), beam and deck replacement to Class 1 capacity.

There are currently five structures that are less than Class 1 loading and therefore require posting. Of these structures one is planned for major works to be completed (Waikawa (#23) cover lift), after which this structure will then achieve full HN-HO-72 capacity. CIC and Stantec will continue to consider if remaining posted structures should be left as-is or if (and when) an upgrade/replacement can be justified.

Table 5-1 lists the remaining structures with some indication or likely upgrade or replacement options that could be considered or are being considered.

Table 5-1: Posted bridges that may be justified for upgrade or replacement

| No | Name | Posting | Comment |
|----|---------------|-------------|--|
| 5 | Maipito | 50% Class 1 | Very low capacity. Option assessment indicates not suited to a culvert replacement. Recommend option for beam and deck upgrade to Class 1. |
| P2 | Waipaua | 60% Class 1 | Relatively small catchment (approximately 12 km ²) would likely suit a large culvert. Otherwise install new/additional beams on existing abutments to achieve Class 1. |
| P3 | North Head | 70% Class 1 | Relatively small catchment (approximately 4 km ²) would likely suit a medium size culvert. Otherwise install new/additional beams on existing abutments to achieve Class 1. |
| P4 | Thistle Clear | 80% Class 1 | Relatively small catchment (approximately 5 km ²) would likely suit a medium size culvert. Otherwise install new/additional beams to achieve Class 1. Old abutments have settled and will likely need replacement. |

6 Replacement Programme

CIC has an aging bridge stock, some of which are in poor or very poor condition. Several bridges have been constructed using second-hand components, from other bridges / structures, or had the superstructure reconstructed on the original foundations from the previous bridge. The windy coastal environment results in high corrosion rates for any steel components that are used. Due to the highly corrosive environment, steel is not a favoured material option for future repairs and replacements. As a result, most replacements in the last two decades have used corrugated aluminium culverts, with either a circular pipe or a pipe-arch.

Timber is a viable option although the availability, cost, and sustainability of new hardwood beams can make this material difficult to justify. Other materials such as reinforced concrete are still under consideration, however, they must have careful quality control to ensure they are designed and constructed to resist the highly corrosive environment.

In general, the replacement philosophy for CIC selects structures based on the current assessed condition and the benefits that would be provided by a replacement. This section of the report provides a summary of potential replacements that are either currently being considered or could be considered in the future.

6.1 Maipito

Maipito Bridge (#5) is a steel beam bridge supported on a timber substructure. The steel beams on this bridge have been subjected to heavy corrosion resulting in significant loss of cross-sectional area. In some parts of the beams the main flanges have been reduced in thickness by approximately 50%. The beams have been coated in Goldseal which has significantly reduced the rate of ongoing corrosion. The bridge has been assessed and posted at 50% Class 1.

A detailed catchment and hydraulic analysis has been carried out, including:

- A general drone survey of local catchment and primary flow channel
- Calculation of the Serviceability limit state (SLS) flood flow, the 25-year flood event $Q_{25} = 59.1 \text{ m}^3/\text{s}$, including climate change
- Calculation of the Ultimate limit state (ULS) flood flow, the 250-year flood event $Q_{250} = 103.5 \text{ m}^3/\text{s}$, including climate change
- Assessment of Nairn River back water including maximum tide level, storm surge (+0.55m), sea level rise (+0.74m) plus various flood events

The findings from this analysis were:

- The Nairn River's interaction with the sea level at the outlet creates a significant backwater effect at Maipito Bridge.
- The combination of design flood events (SLS- Q_{25} and ULS- Q_{250}), storm surge and high tide causes water levels that easily overtop the approaches to Maipito Bridge. Predicted sea level rise will compound this issue.
- Under non-extreme conditions (minor flood event plus high tide) the existing bridge will pass a flow equivalent to a Q_{10} event without overtopping the road approaches (zero freeboard).
- Under non-extreme conditions (as above) a twin pipe arch culvert replacement (say 2.1x3.4m) will pass a flow equivalent to a $Q_{0.5}$ event without overtopping the road approaches (zero freeboard) ie. the road may overtop several time per year.
- Under the SLS design event the road approaches to Maipito Bridge are likely to be overtopped with either the existing bridge or with a twin culvert replacement. However, in minor flood events a culvert replacement option is likely to result in the approaches overtopping more frequently.

The following recommendations are proposed:

- A bridge-for-bridge upgrade is adopted.
- Given that the road approaches (both adjacent to the bridge and nearby 'flat' road) are easily overtopped by the SLS event, a fully compliant bridge waterway is not justified. The current bridge waterway can therefore be retained.
- The existing foundations are still in reasonable condition. A simple bridge replacement upgrade option is to replace the superstructure with new glue laminated timber beams and a nail laminated or plank type timber deck, with a design load capacity of Class 1 or HPMV.





Figure 6-1: Maipito Bridge

6.2 Te Awainanga

Te Awainanga Bridge (#15) is a steel beam superstructure on timber / concrete foundations (substructure). The substructure and superstructure are both generally in good condition with minimal rust and sound connections. The deck clamp system was upgraded in 2023 to improve the connection between the deck and the beams. Consideration of a possible replacement of this bridge is largely on the grounds that it has a poor alignment with the road approaches.

The current preferred option is to replace the existing structure with an aluminium culvert on an improved alignment. Given the size of the river, and of the catchment, a large culvert option with high fill height would be required. A preliminary option assessment prepared by Stantec in 2011 concluded that a twin 3.9m diameter culvert with a minimum 28m length would provide the most cost-effective option. A longer culvert length would be required if a higher road level is proposed. Another alternative for consideration is a long span bridge option, though such a structure needs to be long enough to address the poor alignment and would be complex and expensive to construct in such a remote location.

The existing bridge is likely to have between 10 and 20 years of remaining life, provided it is well maintained. Replacement is likely to be complex due the steep terrain, large catchment, the need for temporary access, and the less than preferable road alignment. The bridge is located on a Secondary Collector route, servicing the Owenga community, and is considered a critical link.

In discussions with Council, Stantec have raised concerns over the exposed nature of the substructure and the ongoing heavy maintenance required to the deck and beams. It was therefore agreed that Stantec should look at temporary bypass options that could be installed at short notice in the event of a critical failure. In 2019 Stantec prepared a desktop study considering temporary bypass options. It was concluded that the preferred option is likely to be a combination of a low-flow ford crossing downstream of the river (refer Figure 6-3), installed within one week, followed by a temporary Bailey bridge to provided full access, installed within one month.



Figure 6-2: Te Awainanga looking east



Figure 6-3: Te Awainanga bypass alignment

The Stantec desktop study recommended the following:

- Verify span and founding requirements for the Bailey bridge using current survey data.
- Verify local founding conditions for the Bailey bridge via test pitting.
- Assess what approach works are required to accommodate a suitable turning circle on and off the Bailey bridge.
- Calculate flood water levels (plus freeboard) to set a safe deck level for the Bailey bridge.
- Research the previous low flow ford crossing risks and pit-falls.
- Clear vegetation along the old ford bypass alignment.
- Target a low priority replacement timeline of 10-20 years.

6.3 Lower Nairn

Lower Nairn Bridge (#20) is a steel beam superstructure on timber and concrete foundations (substructure). The foundations bear directly onto shallow rock, and the substructure is in average condition as the concrete pier caissons have developed vertical cracking. The superstructure is also in average condition as the steel beams have medium to heavy corrosion with some minor section loss. Justification for replacement of this bridge is on the grounds that it is a vital link between Waitangi and all other parts of the main island and therefore carries significant traffic numbers in a Chatham Island context.

The bridge is likely to have 20 to 30 years of remaining life provided it is well maintained. Replacement is likely to be complex due to relatively high traffic volumes, the significant size and length, and lack of a suitable temporary bypass. Replacement may entail partial replacement of heavily corroded steel components or full replacement of the sub and superstructure. Replacement options will be considered in more detail as the structure ages and critical issues become apparent.

In discussions with CIC, Stantec have raised concerns over the critical nature of this structure, ongoing corrosion issues and the lack of contingency planning. It was therefore agreed that Stantec should look at temporary bypass options that could be installed at short notice in the event of a critical failure.

In 2019 Stantec prepared a desktop study considering temporary bypass options. It was concluded that the preferred option is likely to be a combination of a low-flow ford crossing downstream of the river, installed within one week, followed by a bailey bridge to provide full access, installed within one month.

Figure 6-4 shows the ford and Bailey bridge alignments under consideration.



Figure 6-4: Lower Nairn Bridge bypass alignment

The Stantec desktop study recommended the following:

- Verify span and founding requirements for the Bailey bridge using current survey data.
- Verify local founding conditions for the Bailey bridge via test pitting.
- Assess what approach works are required to accommodate a suitable turning circle on and off the Bailey bridge.
- Calculate flood water levels (plus freeboard) to set a safe deck level for the Bailey bridge.
- Research the previous low flow ford crossing risks and pitfalls.
- Target a low priority replacement timeline of 20-30 years.

6.4 Replacement Priority

The bridge replacement programme aims to replace one structure approximately every three to four years. Over the next decade it could be expected that up to three bridges may be replaced. Of the bridges considered, our preferred order of replacement is summarised in Table 6-1.

Table 6-1: Replacement Priority

| No | Bridge Name | Time Frame | Comments |
|----|--------------|-----------------------------|---|
| 5 | Maipito | Medium Priority, 5-10 years | Significant corrosion resulting in 50% Class 1 posted load restriction but carries very small traffic volumes and provides connection to a few houses (5-10). |
| 15 | Te Awainanga | Low Priority, 10-20 years | Single lane structure on poor horizontal and vertical alignment providing critical access to Owenga. Complex nature of the site requires early planning to establish practical and cost-effective replacement options. |
| 20 | | Low Priority, 20-30 years | Single lane structure on high volume route providing critical access to Waitangi and the airport. The need for robust critical connections with contingency measures requires early planning to establish temporary crossing options. |

It is important to note that this order is tentative and may be subject to change pending:

- New structural information coming to light, such as:
 - o Capacity calculations
 - o Biennial bridge inspection findings
 - o Periodic structure inspections
- Public and political considerations
- Funding requirements



7 Bridge Inventory List Update

For each of the bridges inspected, the descriptive inventory is checked for accuracy. The CIC bridge inspection form header is a modified version of the previous Transit / NZTA header which reflects the data currently held in RAMM. Both headers are shown below.


| | |
|---|---|
|  | Bridge Inspection Report |
| Bridge Name: | Highway:..... R.P:..... |
| Spans: | Width Between Kerbs:..... Length:..... |
| Type of Bridge: | Restrictions:..... |
| Inspected By:..... | Date: /.../ Reviewed By:..... Date: / / |
| (Bridge Inspection Engineer) | |

Figure 7-1: Superseded bridge inspection inventory checklist header


| | | | |
|---|---|--------------------------------|--------------------|
|  | Bridge Inspection Form | | |
| BRIDGE DATA TABLE | | BRIDGE ID | 1 |
| Road Name | <u>PORT HUTT ROAD</u> | Bridge Name | <u>WHANGATETE</u> |
| Bridge Spans/ Culvert Width | <u>1/2.7</u> | Road Length | <u>3</u> |
| Bridge Type | <u>CORGA</u> | Restrictions | <u>HN-HO-72</u> |
| Culvert (Y/N) | <u>Yes</u> <small>(Culvert has solid invert)</small> | Previous Insp | <u>17-18</u> |
| | | Inspected By | <u>BEP</u> |
| | | Displacement | <u>11532-11535</u> |
| | | Deck Width / Culvert Length | <u>32.0</u> |
| | | Kerb/Rail Width | <u>0.0</u> |
| | | Boat/Tide Acc | <u>No</u> |
| | | Date (Time) | <u>13/11/2019</u> |

Figure 7-2: CIC bridge inspection inventory checklist header

Based on this year’s inspections, the following changes are proposed:

- Update of RAMM data for the newly installed Whangamoe Culvert

The descriptive inventory has been updated with the verified details of each structure and is contained in Appendix A .

8 Recommendations

From the results of this inspection cycle, we seek approval for the following recommendations:

- Fulton Hogan to proceed with the “routine maintenance” items listed in Appendix C .
- Stantec proceed with the “immediate investigation” items listed in Appendix C .
- Stantec continue regular inspections of the failing Goldseal on the Lower Nairn Bridge. Warranty period has come to an end and further discussions are required with the Goldseal applicator to determine the next steps.
- That Stantec proceed with the following bridge capacity related tasks from Section 3.2:
 - Continue with checking of local heavy commercial vehicles for overweight access
 - Remove 50% Class 1 posting at Waikawa Culvert once headwall improvements completed and additional cover has been added
 - Carry out 10-yearly revision of all current postings in 2025
 - Publish annual public notification of all posted structures in accordance with the regulations, typically February each year
- Stantec and Fulton Hogan proceed with nominated work on the structures identified with “key issues” from Section 3.3 including:
 - Waikawa Culvert (#23): Increase cover depth to 0.6m min
 - Te Awainanga (#15): Remove dirt and debris from TR abutment and beams
- Stantec and Hunter Civil proceed with nominated work on the structures identified with “key issues” from Section 3.3. This includes:
 - Kaingaroa Wharf (#27): Complete remaining make-safe works including the rebuild of the southern fender
 - Owenga Wharf (#24): Complete remaining pile/bracing repairs (minor defects to be address)
- Stantec, Fulton Hogan, and Council discuss critical issues relating to repeat defects from the last inspection cycle, and take action to improve completion rate of work items from Section 4.
- Stantec and Council consider economic assessment of posted structures to determine if replacement or upgrade can be justified or funded (Section 5).
- Stantec proceed with recommendations on proposed replacement structures, if funding is available (Section 6) including:
 - Maipito (#5): Decide options for superstructure replacement to achieve Class 1 capacity
 - Te Awainanga (#15): Further recommendation work to development replacement and bypass options
 - Lower Nairn (#20): Further recommendation work to development replacement and bypass options
- Stantec proceed with the proposed updates to the RAMM online database (Section 8).



Appendices

We design with community in mind



Appendix A Schedule of Bridges



A.1 Chatham Islands Council – Schedule of Bridges

A.1.1 Chatham Island

| ID. | Road | Name | Span (m) | Type of Construction | Foundations | Built | Loading (Checked) | Comments | Last Inspect |
|-----|-------------------|------------|----------|--|-----------------|-------------|--------------------|-------------------------------------|--------------|
| 1 | Port Hutt | Whangatete | 2.7 | Aluminium circular culvert (2.7m dia) | Culvert | 2009 | HN-HO-72 (2010) | | Dec 23 |
| 2 | Port Hutt | Whangamoe | 3.0 | Aluminium circular culvert (3.05m dia) | Culvert | 2023 | HN-HO-72 (2023) | New | Dec 23 |
| 3 | Waitangi West | Washout | 10.4 | Timber (Glulam Beams) | Timber piles | 1990 | Class 1 (2014) | | Dec 23 |
| 5 | Maipito | Maipito | 15.3 | Steel beams, timber deck | Timber piles | 1974 | 50% Class 1 (2014) | Beams heavily pitted from corrosion | Dec 23 |
| 6 | North | Waipapa | 3.3 | Aluminium pipe-arch culvert (3.28 x 2.38m) | Culvert | 2004 | HN-HO-72 (2016) | | Dec 23 |
| 7 | Waitangi – Owenga | Kaiwhata | 2 x 1.5 | Aluminium circular culvert (2 x 1.5m dia) | Culverts | 2000 | HN-HO-72 (2016) | | Dec 23 |
| 8 | Airbase | Waikato | 2 x 3.0 | Aluminium circular culvert (2 x 3.0m dia) | Culverts | 2019 | HN-HO-72 (2019) | | Dec 23 |
| 9 | Tuku | Matakatau | 2.7 | Aluminium pipe-arch culvert (2.7 x 2.1 m) | Culvert | 1999 | HN-HO-72 (2016) | | Dec 23 |
| 10 | Tuku | Awamata | 4.3 | Timber | Stone abutments | 1934 & 1979 | Class 1 (2014) | | Dec 23 |
| 11 | Tuku | Awatotara | 4.3 | Aluminium pipe-arch culvert (4.3 x 2.9 m) | Culvert | 2006 | HN-HO-72 (2006) | | Dec 23 |
| 12 | Tuku | Kiringe | 4.3 | Timber | Concrete | 1978 | Class 1 (2014) | | Dec 23 |



| ID. | Road | Name | Span (m) | Type of Construction | Foundations | Built | Loading (Checked) | Comments | Last Inspect |
|-----|-------------------|--------------|-------------|---|--------------------|-------------|--------------------|---|--------------|
| 13 | Tuku | Tuku | 10.2 | Timber | Concrete | 1988 | Class 1 (2014) | | Dec 23 |
| 14 | Waitangi – Owenga | Mangape | 3.0 | Aluminium pipe-arch culvert (3.0 x 2.1 m) | Culvert | 1993 | Class 1 (2014) | | Dec 23 |
| 15 | Waitangi – Owenga | Te Awainanga | 13.1 & 10.1 | Steel beams, timber baulk deck | Concrete | 1943 & 1978 | Class 1 (2010) | | Dec 23 |
| 16 | Waitangi – Owenga | Mangahou | 2 x 3.7 | Aluminium pipe-arch culvert (2No 3.7x2.6 m) | Culvert | 2005 | HN-HO-72 (2010) | | Dec 23 |
| 17 | Waitangi – Owenga | Kahiti | 2.2 | Aluminium pipe-arch (2.2 x 1.7 m) | Culvert | 1991 | HN-HO-72 (2010) | | Dec 23 |
| 18 | Waitangi – Owenga | Te One | 5.5 | Aluminium multi-plate arch (5.5 m dia) | Concrete | 2015 | HN-HO-72 (2015) | | Dec 23 |
| 19 | Waitangi – Owenga | Hawaiki | 8.3 | Steel beams, timber deck | Concrete | 1973 | Class 1 (2012) | | Dec 23 |
| 20 | Waitangi – Owenga | Lower Nairn | 6 x 6.5 | Steel beams, timber baulk deck | Concrete cylinders | 1948 & 1979 | Class 1 (2009) | Goldseal barrier coat ongoing failure/monitoring | Dec 23 |
| 23 | Port Hutt | Waikawa | 2.4 | Alufo circular culvert (2.4 m dia) | Culvert | 2010 | 50% Class 1 (2017) | Scheduled for additional cover to meet 100% Class 1 | Dec 23 |
| 24 | Waitangi – Owenga | TBC Unnamed | 2.4 | Aluminium pipe-arch culvert (2.4 x 1.8 m) | Culvert | 2022 | HN-HO-72 (2021) | | Dec 23 |
| 25 | Waitangi – Owenga | Gillespie | 1.5 & 2.5 | Aluminium circular culverts (1.5m and 2.5m dia) | Culvert | 1994 & 2022 | HN-HO-72 (2021) | | Dec 23 |
| 26 | North Road | Waitaha | 2.4 | Aluminium pipe-arch culvert (2.4 x 1.8 m) | Culvert | 2021 | HN-HO-72 (2021) | | Dec 23 |



| ID. | Road | Name | Span (m) | Type of Construction | Foundations | Built | Loading (Checked) | Comments | Last Inspect |
|-----|---|-----------------|---------------------------------|---|--------------------|-------|-------------------|--|--------------|
| W1 | Owenga Wharf | Owenga Wharf | 13 x 4.6m & 9 x 2.3m | Timber | Timber piles | 2009 | Class 1 (2009) | Underwater inspection due in 2025 | Dec 23 |
| W2 | Kaingaroa Road | Kaingaroa Wharf | 4 x 5.5m & 5 x 12.0m & 2 x 6.0m | Timber deck, steel/timber beams, concrete foundations | Concrete cylinders | 1984 | Closed | Aging structure in very poor condition with rapid deterioration, | Dec 23 |
| | 25 bridge structures – combined length (sum of spans) | | 344m | | | | | | |



A.1.2 Pitt Island

| Item | Road | Name | Span (m) | Type of Construction | Foundations | Built | Loading (Checked) | Comments | Last Inspect | Priority |
|------|---|---------------|----------|----------------------|--------------|-------|--------------------|---------------------------------|--------------|----------|
| P1 | Flowerpot to Glory | Waipapaku | 8.1 | Timber | Concrete | 2018 | Class 1 (2018) | Beams and deck replaced in 2018 | Feb 23 | |
| P2 | Flowerpot to Glory | Waipaua | 8.9 | Timber | Gabions | 1972 | 60% Class 1 (2016) | | Feb 23 | |
| P3 | North Head | North Head | 4.0 | Timber | Gabions | 1972 | 70% Class 1 (2016) | Deck replaced in 2018 | Feb 23 | |
| P4 | Flowerpot to Glory | Thistle Clear | 4.0 | Timber | Timber piles | 1993 | 80% Class 1 (2016) | Half of deck replaced in 2018 | Feb 23 | |
| | Four bridges - combined length (sum of spans) | | 25m | | | | | | | |



Appendix B Bridge Locality Maps

Map excludes the Owenga and Kaingaroa Wharves



Appendix C Inspection Results Summary



| Bridge Inspection List Summary IMMEDIATE INVESTIGATION | | | | | | | |
|--|-------------------|--------------|-----------------|-----------------|--|--|------------------------------|
| Brdg No | Road Name | Bridge Name | Current Insp Yr | Inspection Item | Comments | Action | Work from Last Insp Complete |
| 13 | TUKU ROAD | TUKU | 23-24 | 6 | 6. * All HD cleats are heavily corroded. | 6. Replace with stainless. See detail on 2019 site inspection | NO |
| 23 | PORT HUTT ROAD | WAIKAWA | 23-24 | 19 | 19. * Cover to crown is marginal at DS end (0.34m in | 19. Install reinforced fill (eg green teramesh or miragrid or | NO |
| 23 | PORT HUTT ROAD | WAIKAWA | 23-24 | 35 | 35. * Unstable road formation and non-compliant cover. | 35. Extend culvert by 4m each end, or replace full length, or narrow road to suit 0.6m cover. | NO |
| W1 | OWENGA WHARF ROAD | OWENGA WHARF | 23-24 | 24 | 24. * Slip grip netting has failed. | 24. Continue water blasting at regular intervals to remove algae (alternative option to install s/steel mesh test patch 4x4m (40x40x3.15 mesh)). | YES |

| Bridge Inspection List Summary ROUTINE MAINTENANCE | | | | | | | | | | | | |
|--|---------|--------------------------|---------------|-----------------|-----------------|--|--|------------------------------|---------------------------|----------|---------------|------------|
| | | | | | | | | | | | | |
| | Brdg No | Road Name | Bridge Name | Current Insp Yr | Inspection Item | Comments | Action | Work from Last Insp Complete | Time to Complete (months) | Complete | RAMM Dispatch | Importance |
| 1 | 1 | PORT HUTT ROAD | WHANGATEE | 23-24 | 36 | 36. Scour hole at outlet 0.5m deep. Too deep to check, verify next inspection. | 36. Fill with rock D=0.3m to match invert. | | 3 | | | MED |
| 3 | 3 | WAITANGI WEST ROAD | WASHOUT | 23-24 | 9 | 9. * Handrail post and stay only fixed with Tek screws. See detail in report. | 9. Replace Tek screws with M16 coach screws. | NO | 1 | | | HIGH |
| | 3 | WAITANGI WEST ROAD | WASHOUT | 23-24 | 22 | 22. Significant deck wear. One broken plank. | 22. Monitor. Replace single broken plank and consider full deck replacement. | | 1 | | | HIGH |
| 5 | 5 | MAIPITO ROAD | MAIPITO | 23-24 | 22 | 22. Loose running boards. | 22. Refix with tekscrews. | | 1 | | | HIGH |
| | 5 | MAIPITO ROAD | MAIPITO | 23-24 | 23 | 23. Missing nuts on midspan cross brace. | 23. Replace entire rod/nut assembly. | | 3 | | | HIGH |
| 8 | 8 | AIR BASE ROAD | WAIKATO | 23-24 | 3 | 3. * BEMs on 45deg angle to traffic. | 3. Reinstall at right angle to traffic. | NO | 1 | | | HIGH |
| 9 | 9 | TUKU ROAD | MATAKATAU | 23-24 | 34 | 34. * Trees in US waterway. | 34. Remove for 10m US. | NO | 6 | | | MED |
| | 9 | TUKU ROAD | MATAKATAU | 23-24 | 34 | 34. Significant vegetation around inlet and outlet. | 34. Remove. | | 6 | | | MED |
| 10 | 10 | TUKU ROAD | AWAMATA | 23-24 | 20 | 20. Dirt/gravel on beam seating. | 20. Clear. | | 3 | | | MED |
| | 10 | TUKU ROAD | AWAMATA | 23-24 | 22 | 22. Running boards lifting. | 22. Refix with tekscrews. | | 1 | | | HIGH |
| 11 | 11 | TUKU ROAD | AWATOTARA | 23-24 | 34 | 34. * Excessive veg covering inlet and outlet. Talk with Bruce and Liz Tuanui before proceeding. | 34. Clear. | NO | 6 | | | MED |
| 12 | 12 | TUKU ROAD | KIRINGE | 23-24 | 20 | 20. * Dirt/gravel dropping from approach fill onto the abutment beam seating both sides. | 20. Clear. | NO | 3 | | | MED |
| | 12 | TUKU ROAD | KIRINGE | 23-24 | 22 | 22. Five planks on TL end have come loose. | 22. Refix with tekscrews. | | 1 | | | HIGH |
| 15 | 15 | WAITANGI OWENGA RD | TE AWAINANGA | 23-24 | 10 | 10. Debris build-up on deck. | 10. Clear. | | 6 | | | LOW |
| | 15 | WAITANGI OWENGA RD | TE AWAINANGA | 23-24 | 19 | 19. * Excess debris buildup on TR abutment beam seating. | 19. Clear debris from abutment. | NO | 3 | | | MED |
| 17 | 17 | WAITANGI OWENGA RD | KAHITI | 23-24 | 34 | 34. * Remaining vegetation covering inlet. | 34. Clear inlet. | NO | 6 | | | MED |
| | 17 | WAITANGI OWENGA RD | KAHITI | 23-24 | 35 | 35. * Erosion of inlet TR. | 35. Fill inlet with riprap D=0.15m | NO | 3 | | | MED |
| 19 | 19 | WAITANGI OWENGA RD | HAWAIKI | 23-24 | 22 | 22. Two running boards are lifting. | 22. Refix with tekscrews. | | 1 | | | HIGH |
| 20 | 20 | WAITANGI OWENGA RD | LOWER NAIRN | 23-24 | 9 | 9. * Kerb bolts on handrail post heavily rusted. | 9. Replace approx 10 bolts. | NO | 1 | | | HIGH |
| | 20 | WAITANGI OWENGA RD | LOWER NAIRN | 23-24 | 10 | 10. * Debris buildup on deck and US edge. | 10. Clear and waterblast. | NO | 6 | | | LOW |
| 23 | 23 | PORT HUTT ROAD | WAIKAWA | 23-24 | 3 | 3. Orange BEMs broken and fallen over. | 3. Reinstate. | | 1 | | | HIGH |
| 25 | 25 | WAITANGI OWENGA RD | GILLESPIE | 23-24 | 2 | 2. No BEMs on sight rail. | 2. Install new. | | 1 | | | HIGH |
| 26 | 26 | NORTH ROAD | WAITAHA | 23-24 | 19 | 19. * Cover to crown is marginal at US end (0.52m in 2023). Should be 0.6m min for HH072. | 19. Increase cover. | NO | 3 | | | HIGH |
| P1 | P1 | FLOWER POT TO GLORY ROAD | WAIPAPAKU | 23-24 | 9 | 9. DS kerb has 2No M12 bolt which are undersized. | 9. Replace with M16 bolts. | | 1 | | | HIGH |
| | P1 | FLOWER POT TO GLORY ROAD | WAIPAPAKU | 23-24 | 10 | 10. Debris build-up on deck. | 10. Clear | | 6 | | | LOW |
| P2 | P2 | FLOWER POT TO GLORY ROAD | WAIPAUA | 23-24 | 2 | 2. Potholes in north approach. | 2. Fill/repair. | | 3 | | | HIGH |
| | P2 | FLOWER POT TO GLORY ROAD | WAIPAUA | 23-24 | 3 | 3. Posting signage fallen over. | 3. Reinstate signage. | | 6 | | | LOW |
| | P2 | FLOWER POT TO GLORY ROAD | WAIPAUA | 23-24 | 20 | 20. * Excess debris on bearing shelf. | 20. Clear. | NO | 3 | | | MED |
| P3 | P3 | NORTH HEAD ROAD | NORTH HEAD | 23-24 | 9 | 9. * Kerb blocks rotating. | 9. Add 2nd bolt to all blocks. | NO | 1 | | | HIGH |
| | P3 | NORTH HEAD ROAD | NORTH HEAD | 23-24 | 10 | 10. Debris build-up on deck. | 10. Deck renewed in 2018. | | 6 | | | LOW |
| | P3 | NORTH HEAD ROAD | NORTH HEAD | 23-24 | 20 | 20. * Beams decaying at supports and approach fill not retained. | 20. Install new backing boards to both abutments. | NO | 3 | | | MED |
| P4 | P4 | FLOWER POT TO GLORY ROAD | THISTLE CLEAR | 23-24 | 2 | 2. Pothole on southern approach. | 2. Fill/repair. | | 3 | | | HIGH |
| | P4 | FLOWER POT TO GLORY ROAD | THISTLE CLEAR | 23-24 | 3 | 3. No posting signage. | 3. Reinstate signage. | | 6 | | | LOW |
| | P4 | FLOWER POT TO GLORY ROAD | THISTLE CLEAR | 23-24 | 10 | 10. Debris build-up on deck. | 10. Clear. | | 6 | | | LOW |

Appendix D Inspection Forms

Structure Index:

| No. | Road Name | Bridge Name |
|-----|--------------------|-----------------|
| 1 | Port Hutt | Whangatete |
| 2 | Port Hutt | Whangamoe |
| 3 | Waitangi West | Washout |
| 5 | Maipito | Maipito |
| 6 | North | Waipapa |
| 7 | Waitangi-Owenga | Kaiwhata |
| 8 | Airbase | Waikato |
| 9 | Tuku | Matakatau |
| 10 | Tuku | Awamata |
| 11 | Tuku | Awatotara |
| 12 | Tuku | Kiringe |
| 13 | Tuku | Tuku |
| 14 | Waitangi-Owenga | Mangape |
| 15 | Waitangi-Owenga | Te Awainanga |
| 16 | Waitangi-Owenga | Mangahou |
| 17 | Waitangi-Owenga | Kahiti |
| 18 | Waitangi-Owenga | Te One |
| 19 | Waitangi-Owenga | Hawaiki |
| 20 | Waitangi-Owenga | Lower Nairn |
| 23 | Port Hutt | Waikawa |
| 24 | Waitangi-Owenga | TBC Unnamed |
| 25 | Waitangi-Owenga | Gillespie |
| 26 | North | Waitaha |
| P1 | Flowerpot to Glory | Waipapaku |
| P2 | Flowerpot to Glory | Waipaua |
| P3 | North Head | North Head |
| P4 | Flowerpot to Glory | Thistle Clear |
| W1 | Owenga | Owenga Wharf |
| W2 | Kaingaroa | Kaingaroa Wharf |



Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 1 |
|--------------------------------|-----------------------------------|---------------|------------|--------------------------------|-------------|
| Road Name | PORT HUTT ROAD | Bridge Name | WHANGATETE | Displacement | 11532-11535 |
| Bridge Spans/ Culvert Width | 1/2.7 | Road Length | 3 | Deck Width / Culvert Length | 32.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 7/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|-------------------------------|-------------------------|---|----|---------------------------|---|---|--------|-------------------------|------------------------------|-----------------------------|---|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 2 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 1 |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| | | | | | | | Main | Sec | | | | |
| 7 | Expansion Joints | 1 | | | | | | | 32 | River aggrading | | 1 |
| 8 | Footways | 1 | | | | | | | 33 | River degrading | | 1 |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 34 | Waterway adequate | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 35 | Erosion of abuts / approach | | 1 |
| | | | 22 | Deck wear | - | - | - | - | 36 | Foundation embedment | | 3 |
| | | | 23 | Bolts / spikes | - | - | - | - | 37 | Other erosion / scour risks | | 1 |
| | | | 24 | Other defects | - | - | - | - | | | | |
| | | | 25 | Date of last boring | - | - | - | - | | | | |
| | | | | MARKING SCHEDULE | | | | | | | | |
| Comments and recommendations. | | | | Not Inspected | | | 0 | Routine Maintenance | | | 3 | |
| | | | | Satisfactory | | | 1 | Immediate Investigation | | | 4 | |
| | | | | Monitor | | | 2 | Immediate Action | | | 5 | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | - |

| GENERAL | | |
|-------------|--|--|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | 29. Invert subject to abrasion wear. | 29. Monitor. |
| WATERWAY | 36. Scour hole at outlet 0.5m deep. Too deep to check, verify next inspection. | 36. Fill with rock D=0.3m to match invert. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 2 |
|--------------------------------|-----------------------------------|---------------|-----------|--------------------------------|-------------|
| Road Name | PORT HUTT ROAD | Bridge Name | WHANGAMOE | Displacement | 13522-13530 |
| Bridge Spans/ Culvert Width | 1/3.0 | Road Length | 3 | Deck Width / Culvert Length | 24.7 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 23-24 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 7/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|--------|---------------|------------------|--------|-------------------------|------------------------------|---|--|---|
| | | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | | 2 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| 8 | Footways | 1 | | | | | Main | Sec | | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 32 | River aggrading | | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 33 | River degrading | | | 1 |
| | | | 22 | Deck wear | - | - | - | - | 34 | Waterway adequate | | | 1 |
| | | | 23 | Bolts / spikes | - | - | - | - | 35 | Erosion of abuts / approach | | | 1 |
| | | | 24 | Other defects | - | - | - | - | 36 | Foundation embedment | | | 1 |
| | | | 25 | Date of last boring | - | - | - | - | 37 | Other erosion / scour risks | | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | MARKING SCHEDULE | | | | | | |
| | | | | Main | Sec | | | | | | | | |
| 11 | Cracking | - | - | - | - | Not Inspected | | 0 | Routine Maintenance | | 3 | | |
| 12 | Spalling | - | - | - | - | Satisfactory | | 1 | Immediate Investigation | | 4 | | |
| 13 | Reinforcement corrosion | - | - | - | - | Monitor | | 2 | Immediate Action | | 5 | | |
| 14 | Other defects | - | - | - | - | | | | | | | | |
| Comments and recommendations. | | | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | - |

| GENERAL | | |
|-------------|--|--------------|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | 31. Culvert mitre is flush and not projecting. | 31. Monitor. |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 3 |
|--------------------------------|----------------------------------|---------------|---------|--------------------------------|-----------|
| Road Name | WAITANGI WEST ROAD | Bridge Name | WASHOUT | Displacement | 5728-5739 |
| Bridge Spans/ Culvert Width | 1/10.4 | Road Length | 11 | Deck Width / Culvert Length | 3.7 |
| Bridge Type | TT | Restrictions | Class 1 | Kerb/Rail Width | 3.4 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 7/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|---------|------|--------|-----|------------------------------|--|---|
| | | | | | | | Main | Sec | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | - | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | - | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | - | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | - | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | - | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | |
| 9 | Hand or guardrail | 3 | 20 | Decay | 1 | 1 | - | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | 1 | 1 | - | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 3 | 1 | - | 34 | Waterway adequate | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | 23 | Bolts / spikes | 1 | 1 | - | 35 | Erosion of abuts / approach | | 2 |
| | | | 24 | Other defects | 1 | 1 | - | 36 | Foundation embedment | | 1 |
| 11 | Cracking | - | 25 | Date of last boring | 1 | 1 | - | 37 | Other erosion / scour risks | | 1 |
| 12 | Spalling | - | MARKING SCHEDULE | | | | | | | | |
| 13 | Reinforcement corrosion | - | | Not Inspected | | 0 | | | Routine Maintenance | | 3 |
| 14 | Other defects | - | | Satisfactory | | 1 | | | Immediate Investigation | | 4 |
| Comments and recommendations. | | | | | Monitor | | 2 | | Immediate Action | | 5 |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| Category | Item | Repair description | Action |
|-------------|------|--|--|
| GENERAL | 9. | * Handrail post and stay only fixed with Tek screws. See detail in report. | 9. Replace Tek screws with M16 coach screws. |
| CONCRETE | | | |
| STEEL/ALUM | | | |
| TIMBER | 22. | Significant deck wear. One broken plank. | 22. Monitor. Replace single broken plank and consider full deck replacement. |
| FOUNDATIONS | | | |
| WATERWAY | 35. | West abutment undermined. | 35. Monitor. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 6 |
|--------------------------------|-----------------------------------|---------------|----------|--------------------------------|-------------|
| Road Name | NORTH ROAD | Bridge Name | WAIPAPA | Displacement | 21744-21747 |
| Bridge Spans/ Culvert Width | 1/3.3 | Road Length | 3 | Deck Width / Culvert Length | 14.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|----|---------------------------|-------------------------|---------------------|--------|-------------------------|------------------------------|-----------------------------|-----------------------------|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 2 |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| | | | | | | | Main | Sec | | | | |
| 7 | Expansion Joints | 1 | | | | | | | 32 | River aggrading | | 1 |
| 8 | Footways | 1 | | | | | | | 33 | River degrading | | 1 |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 34 | Waterway adequate | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 35 | Erosion of abuts / approach | | 2 |
| | | | 22 | Deck wear | - | - | - | - | 36 | Foundation embedment | | 2 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | | |
| | | | | Main | Sec | | | | | | | |
| 11 | Cracking | - | - | - | 23 | Bolts / spikes | - | - | - | 37 | Other erosion / scour risks | 1 |
| 12 | Spalling | - | - | - | 24 | Other defects | - | - | - | | | |
| 13 | Reinforcement corrosion | - | - | - | 25 | Date of last boring | - | - | - | | | |
| 14 | Other defects | - | - | - | MARKING SCHEDULE | | | | | | | |
| Not Inspected | | | | | | | 0 | Routine Maintenance | | | | 3 |
| Satisfactory | | | | | | | 1 | Immediate Investigation | | | | 4 |
| Monitor | | | | | | | 2 | Immediate Action | | | | 5 |

Comments and recommendations.

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | - |

| GENERAL | | |
|-------------|---|------------------------------|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | 31. Culvert barrel skewed due to fabrication error. | 31. Monitor. |
| WATERWAY | 35. Low tech retaining wall on TL US side. 36. Scour hole at outlet. | 35. Monitor. 36. Monitor. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 7 |
|--------------------------------|-----------------------------------|---------------|----------|--------------------------------|-----------|
| Road Name | KAIWHATA ROAD | Bridge Name | KAIWHATA | Displacement | 178-180 |
| Bridge Spans/ Culvert Width | 2/1.5 | Road Length | 2 | Deck Width / Culvert Length | 9.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | Yes |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|----|---------------------------|-------------------------|---------------------|---------------|--------|------------------------------|-----------------------------|-----------------------------|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 2 |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| | | | | | | | Main | Sec | | | | |
| 7 | Expansion Joints | 1 | | | | | | | 32 | River aggrading | | 1 |
| 8 | Footways | 1 | | | | | | | 33 | River degrading | | 1 |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 34 | Waterway adequate | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 35 | Erosion of abuts / approach | | 1 |
| | | | 22 | Deck wear | - | - | - | - | 36 | Foundation embedment | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | | |
| | | | | Main | Sec | | | | | | | |
| 11 | Cracking | - | - | - | 23 | Bolts / spikes | - | - | - | 37 | Other erosion / scour risks | 1 |
| 12 | Spalling | - | - | - | 24 | Other defects | - | - | - | | | |
| 13 | Reinforcement corrosion | - | - | - | 25 | Date of last boring | - | - | - | | | |
| 14 | Other defects | - | - | - | MARKING SCHEDULE | | | | | | | |
| Comments and recommendations. | | | | | | | Not Inspected | | 0 | Routine Maintenance | | 3 |
| | | | | | | | Satisfactory | | 1 | Immediate Investigation | | 4 |
| | | | | | | | Monitor | | 2 | Immediate Action | | 5 |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | - |

| GENERAL | | |
|-------------|-----------------------------------|--------------|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | 31. Marginal cover 0.55m in 2023. | 31. Monitor. |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 8 |
|--------------------------------|-----------------------------------|---------------|----------|--------------------------------|-----------|
| Road Name | AIR BASE ROAD | Bridge Name | WAIKATO | Displacement | 3446-3456 |
| Bridge Spans/ Culvert Width | 2/3.0 | Road Length | 10 | Deck Width / Culvert Length | 16.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 10.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|------------------|------|--------|-------------------------|------------------------------|-----------------------------|---|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 2 | - | 27 | Cracking | | 1 |
| 3 | Signs | 3 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | - | - | - | - | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | - | - | - | - | 35 | Erosion of abuts / approach | 3 | 1 |
| | | | 24 | Other defects | - | - | - | - | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | - | - | - | - | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | | |
| | | | | Main | Sec | | | | | | | |
| 11 | Cracking | - | - | - | MARKING SCHEDULE | | | | | | | |
| 12 | Spalling | - | - | - | Not Inspected | | 0 | Routine Maintenance | | 3 | | |
| 13 | Reinforcement corrosion | - | - | - | Satisfactory | | 1 | Immediate Investigation | | 4 | | |
| 14 | Other defects | - | - | - | Monitor | | 2 | Immediate Action | | 5 | | |
| Comments and recommendations. | | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | 3. * BEMs on 45deg angle to traffic. | 3. Reinstall at right angle to traffic. |
|-------------|--|---|
| CONCRETE | | |
| STEEL/ALUM | 16. Possibility that corrosion may form in invert. | 16. Monitor. |
| TIMBER | | |
| FOUNDATIONS | | |
| WATERWAY | 35. Inlet/outlet rock work installed steeper than 1.5:1.0. Steeper than ideal. | 35. Monitor. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 9 |
|--------------------------------|-----------------------------------|---------------|-----------|--------------------------------|-----------|
| Road Name | TUKU ROAD | Bridge Name | MATAKATAU | Displacement | 4147-4149 |
| Bridge Spans/ Culvert Width | 1/2.7 | Road Length | 2 | Deck Width / Culvert Length | 11.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|--------|------|------------------|-------------------------|------------------------------|-----------------------------|--|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 2 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | - | - | - | | 34 | Waterway adequate | | 3 |
| | | | 23 | Bolts / spikes | - | - | - | | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | - | - | - | | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | - | - | - | | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | MARKING SCHEDULE | | | | | |
| | | | | Main | Sec | | | | | | | |
| 11 | Cracking | - | - | - | | 0 | | Routine Maintenance | | 3 | | |
| 12 | Spalling | - | - | - | | 1 | | Immediate Investigation | | 4 | | |
| 13 | Reinforcement corrosion | - | - | - | | 2 | | Immediate Action | | 5 | | |
| 14 | Other defects | - | - | - | | | | | | | | |
| Comments and recommendations. | | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | | |
|-------------|--|---------------------------------------|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | 31. Marginal cover 0.66 in 2021. Could not access due to excess vegetation. | 31. Monitor. |
| WATERWAY | 34. * Trees in US waterway. 34. Significant vegetation around inlet and outlet. | 34. Remove for 10m US. 34. Remove. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 10 |
|--------------------------------|---|---------------|---------|--------------------------------|-------------|
| Road Name | TUKU ROAD | Bridge Name | AWAMATA | Displacement | 11028-11033 |
| Bridge Spans/ Culvert Width | 1/4.3 | Road Length | 5 | Deck Width / Culvert Length | 4.8 |
| Bridge Type | TT | Restrictions | Class 1 | Kerb/Rail Width | 4.5 |
| Culvert (Y/N) | No <small>(Culvert has solid invert)</small> | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | |
|---------------------------------|-------------------------|---|----|---------------------------|--------|---|--------|-------------------------|------------------------------|--------------------|---|
| | | | | | | | Main | Sec | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | - | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | - | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | - | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | - | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | - | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | 31 | Other defects | | 1 |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | |
| | | | | | | | Main | Sec | | | |
| 7 | Expansion Joints | 1 | | | | | | | | | |
| 8 | Footways | 1 | | | | | | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | 1 | 3 | - | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | 1 | 1 | - | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 3 | 1 | - | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | 1 | 1 | - | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | 1 | 1 | - | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | 1 | 1 | - | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | |
| | | | | Main | Sec | | | | | | |
| 11 | Cracking | - | - | - | | | | | | | |
| 12 | Spalling | - | - | - | | | | | | | |
| 13 | Reinforcement corrosion | - | - | - | | | | | | | |
| 14 | Other defects | - | - | - | | | | | | | |
| Comments and recommendations. | | | | MARKING SCHEDULE | | | | | | | |
| | | | | Not Inspected | | | 0 | Routine Maintenance | | | 3 |
| | | | | Satisfactory | | | 1 | Immediate Investigation | | | 4 |
| | | | | Monitor | | | 2 | Immediate Action | | | 5 |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | YES |

| GENERAL | | |
|-------------|---|---|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | 20. Dirt/gravel on beam seating. 22. Running boards lifting. | 20. Clear. 22. Refix with tekscrews. |
| FOUNDATIONS | | |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 11 |
|--------------------------------|-----------------------------------|---------------|-----------|--------------------------------|-------------|
| Road Name | TUKU ROAD | Bridge Name | AWATOTARA | Displacement | 17155-17160 |
| Bridge Spans/ Culvert Width | 1/4.3 | Road Length | 4 | Deck Width / Culvert Length | 16.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|-------------------------------|-------------------------|---|----|---------------------------|---|---|--------|-------------------------|------------------------------|-----------------------------|--|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 2 |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| | | | | | | | Main | Sec | | | | |
| 7 | Expansion Joints | 1 | | | | | | | 32 | River aggrading | | 1 |
| 8 | Footways | 1 | | | | | | | 33 | River degrading | | 1 |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 34 | Waterway adequate | | 3 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 35 | Erosion of abuts / approach | | 1 |
| | | | 22 | Deck wear | - | - | - | - | 36 | Foundation embedment | | 1 |
| | | | 23 | Bolts / spikes | - | - | - | - | 37 | Other erosion / scour risks | | 1 |
| | | | 24 | Other defects | - | - | - | - | | | | |
| | | | 25 | Date of last boring | - | - | - | - | | | | |
| | | | | MARKING SCHEDULE | | | | | | | | |
| Comments and recommendations. | | | | Not Inspected | | | 0 | Routine Maintenance | | 3 | | |
| | | | | Satisfactory | | | 1 | Immediate Investigation | | 4 | | |
| | | | | Monitor | | | 2 | Immediate Action | | 5 | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | | |
|-------------|--|--------------|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | 31. Poor installation has resulted in significant deformation of the base and inlet. | 31. Monitor. |
| WATERWAY | 34. * Excessive veg covering inlet and outlet. Talk with Bruce and Liz Tuanui before procedding. | 34. Clear. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 12 |
|--------------------------------|----------------------------------|---------------|---------|--------------------------------|-------------|
| Road Name | TUKU ROAD | Bridge Name | KIRINGE | Displacement | 18010-18015 |
| Bridge Spans/ Culvert Width | 1/4.3 | Road Length | 5 | Deck Width / Culvert Length | 3.4 |
| Bridge Type | TT | Restrictions | Class 1 | Kerb/Rail Width | 3.1 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|------------------|------|--------|-------------------------|------------------------------|---|---|
| | | | | | | | Main | Sec | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | - | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | - | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | - | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | - | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | - | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | 1 | 3 | - | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | 1 | 1 | - | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 1 | 1 | - | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | 3 | 1 | - | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | 1 | 1 | - | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | 1 | 1 | - | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | |
| | | | | Main | Sec | | | | | | |
| 11 | Cracking | - | - | - | MARKING SCHEDULE | | | | | | |
| 12 | Spalling | - | - | - | Not Inspected | | 0 | Routine Maintenance | | 3 | |
| 13 | Reinforcement corrosion | - | - | - | Satisfactory | | 1 | Immediate Investigation | | 4 | |
| 14 | Other defects | - | - | - | Monitor | | 2 | Immediate Action | | 5 | |
| Comments and recommendations. | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | | |
|-------------|--|---|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | 20. * Dirt/gravel dropping from approach fill onto the abutment beam seating both sides. 22. Five planks on TL end have come loose. | 20. Clear. 22. Refix with tekscrews. |
| FOUNDATIONS | | |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 13 |
|--------------------------------|----------------------------------|---------------|---------|--------------------------------|-------------|
| Road Name | TUKU ROAD | Bridge Name | TUKU | Displacement | 21142-21153 |
| Bridge Spans/ Culvert Width | 1/10.2 | Road Length | 11 | Deck Width / Culvert Length | 3.2 |
| Bridge Type | TT | Restrictions | Class 1 | Kerb/Rail Width | 2.9 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | |
|---------------------------------|-------------------------|---|----|---------------------------|--------|---|--------|-------------------------|------------------------------|--------------------|---|
| | | | | | | | Main | Sec | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | - | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | - | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | - | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | - | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | - | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 4 | | | | | | 31 | Other defects | | 1 |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | |
| | | | | | | | Main | Sec | | | |
| 7 | Expansion Joints | 1 | | | | | | | | | |
| 8 | Footways | 1 | | | | | | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | 1 | 1 | - | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | 1 | 1 | - | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 2 | 1 | - | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | 1 | 1 | - | 35 | Erosion of abuts / approach | | 2 |
| | | | 24 | Other defects | 1 | 1 | - | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | 1 | 1 | - | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | |
| | | | | Main | Sec | | | | | | |
| 11 | Cracking | - | - | - | | | | | | | |
| 12 | Spalling | - | - | - | | | | | | | |
| 13 | Reinforcement corrosion | - | - | - | | | | | | | |
| 14 | Other defects | - | - | - | | | | | | | |
| Comments and recommendations. | | | | MARKING SCHEDULE | | | | | | | |
| | | | | Not Inspected | | | 0 | Routine Maintenance | | | 3 |
| | | | | Satisfactory | | | 1 | Immediate Investigation | | | 4 |
| | | | | Monitor | | | 2 | Immediate Action | | | 5 |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | 6. * All HD cleats are heavily corroded. | 6. Replace with stainless. See detail on 2019 site inspection sheet. |
|-------------|--|--|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | 22. Deck decaying. | 22. Monitor. |
| FOUNDATIONS | | |
| WATERWAY | 35. Scour around DS TR wingwall. | 35. Monitor. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 14 |
|--------------------------------|-----------------------------------|---------------|---------|--------------------------------|-----------|
| Road Name | WAITANGI OWENGA RD | Bridge Name | MANGAPE | Displacement | 2724-2727 |
| Bridge Spans/ Culvert Width | 1/3.0 | Road Length | 3 | Deck Width / Culvert Length | 9.0 |
| Bridge Type | CORGA | Restrictions | Class 1 | Kerb/Rail Width | 9.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 6/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|----|---------------------------|------------------|---------------------|---------------|--------|------------------------------|-----------------------------|-----------------------------|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 1 |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| | | | | | | | Main | Sec | | | | |
| 7 | Expansion Joints | 1 | | | | | | | 32 | River aggrading | | 1 |
| 8 | Footways | 1 | | | | | | | 33 | River degrading | | 1 |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 34 | Waterway adequate | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 35 | Erosion of abuts / approach | | 1 |
| | | | 22 | Deck wear | - | - | - | - | 36 | Foundation embedment | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | | |
| | | | | Main | Sec | | | | | | | |
| 11 | Cracking | - | - | - | 23 | Bolts / spikes | - | - | - | 37 | Other erosion / scour risks | 1 |
| 12 | Spalling | - | - | - | 24 | Other defects | - | - | - | | | |
| 13 | Reinforcement corrosion | - | - | - | 25 | Date of last boring | - | - | - | | | |
| 14 | Other defects | - | - | - | MARKING SCHEDULE | | | | | | | |
| Comments and recommendations. | | | | | | | Not Inspected | 0 | Routine Maintenance | 3 | | |
| | | | | | | | Satisfactory | 1 | Immediate Investigation | 4 | | |
| | | | | | | | Monitor | 2 | Immediate Action | 5 | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | - |

| GENERAL | | |
|-------------|--|--|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | | |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 15 |
|--------------------------------|----------------------------------|---------------|--------------|--------------------------------|-------------|
| Road Name | WAITANGI OWENGA RD | Bridge Name | TE AWAINANGA | Displacement | 11728-11751 |
| Bridge Spans/ Culvert Width | 1/10.1, 1/13.1 | Road Length | 23 | Deck Width / Culvert Length | 4.0 |
| Bridge Type | ST | Restrictions | Class 1 | Kerb/Rail Width | 3.7 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 6/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------|-------------------------|---|----|---------------------------|---|---|--------|-------------------------|------------------------------|-----------------------------|---|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | 1 | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | 1 | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | 1 | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | 1 | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 3 | 1 | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | | | | | | | | | | |
| 8 | Footways | 1 | | | | | | | | | | |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| | | | | | | | Main | Sec | | | | |
| 9 | Hand or guardrail | 2 | 20 | Decay | 1 | - | - | - | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 3 | 21 | Warping / cracking | 1 | - | - | - | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 2 | - | - | - | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | 1 | - | - | - | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | 1 | - | - | - | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | 1 | - | - | - | 37 | Other erosion / scour risks | | 1 |
| | | | | MARKING SCHEDULE | | | | | | | | |
| | | | | Not Inspected | | | 0 | Routine Maintenance | | | 3 | |
| | | | | Satisfactory | | | 1 | Immediate Investigation | | | 4 | |
| | | | | Monitor | | | 2 | Immediate Action | | | 5 | |

Comments and recommendations.

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | 9. Handrail and kerbs in poor condition. 10. Debris build-up on deck. | 9. Monitor. 10. Clear. |
|-------------|--|---------------------------------|
| CONCRETE | | |
| STEEL/ALUM | 19. * Excess debris buildup on TR abutment beam seating. | 19. Clear debris from abutment. |
| TIMBER | 22. Deck wearing and movement. | 22. Monitor. |
| FOUNDATIONS | | |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 16 |
|--------------------------------|-----------------------------------|---------------|----------|--------------------------------|-------------|
| Road Name | WAITANGI OWENGA RD | Bridge Name | MANGAHOU | Displacement | 14662-14666 |
| Bridge Spans/ Culvert Width | 2/3.7 | Road Length | 4 | Deck Width / Culvert Length | 14.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 6/12/2023 |

| GENERAL | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | | |
|---------------------------------|-------------------------|---|---------------------------|--------------------|------------------|---------------------|--------|------------------------------|-----------------------------|----|-----------------------------|---|
| | | | | | | Main | Sec | | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | 1 | - | 26 | Settlement | | 1 | |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | 1 | - | 27 | Cracking | | 1 | |
| 3 | Signs | 2 | 17 | Joints | | 1 | - | 28 | Spalling | | 1 | |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | 1 | - | 29 | Abrasion | | 1 | |
| 5 | Bearings | 1 | 19 | Other defects | | 1 | - | 30 | Corrosion of steel | | 1 | |
| 6 | H.D. bolts and linkages | 1 | | | | | | 31 | Other defects | | 1 | |
| | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| | | | | | | Main | Sec | | | | | |
| 7 | Expansion Joints | 1 | | | | | | 32 | River aggrading | | 1 | |
| 8 | Footways | 1 | | | | | | 33 | River degrading | | 1 | |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | 34 | Waterway adequate | | 1 | |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | 35 | Erosion of abuts / approach | 2 | 1 | |
| | | | 22 | Deck wear | - | - | - | 36 | Foundation embedment | | 1 | |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | Deck | Member | | | | | | | | |
| | | | Main | Sec | | | | | | | | |
| 11 | Cracking | - | - | - | 23 | Bolts / spikes | - | - | - | 37 | Other erosion / scour risks | 1 |
| 12 | Spalling | - | - | - | 24 | Other defects | - | - | - | | | |
| 13 | Reinforcement corrosion | - | - | - | 25 | Date of last boring | - | - | - | | | |
| 14 | Other defects | - | - | - | MARKING SCHEDULE | | | | | | | |
| Comments and recommendations. | | | | | | Not Inspected | 0 | Routine Maintenance | | 3 | | |
| | | | | | | Satisfactory | 1 | Immediate Investigation | | 4 | | |
| | | | | | | Monitor | 2 | Immediate Action | | 5 | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | YES |

| GENERAL | 3. BEMs often damaged by passing vehicles. | 3. Monitor. |
|-------------|--|--------------|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | | |
| WATERWAY | 35. Scour of TL outlet 0.2m. | 35. Monitor. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 17 |
|--------------------------------|-----------------------------------|---------------|----------|--------------------------------|-------------|
| Road Name | WAITANGI OWENGA RD | Bridge Name | KAHITI | Displacement | 16694-16696 |
| Bridge Spans/ Culvert Width | 1/2.2 | Road Length | 2 | Deck Width / Culvert Length | 23.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 6/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|--------|------|------------------|-------------------------|------------------------------|--------------------|---|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 2 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | 32 | River aggrading | | 1 | |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | 33 | River degrading | | 1 | |
| | | | 22 | Deck wear | - | - | - | 34 | Waterway adequate | | 3 | |
| | | | 23 | Bolts / spikes | - | - | - | 35 | Erosion of abuts / approach | | 3 | |
| | | | 24 | Other defects | - | - | - | 36 | Foundation embedment | | 1 | |
| | | | 25 | Date of last boring | - | - | - | 37 | Other erosion / scour risks | | 1 | |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | MARKING SCHEDULE | | | | | |
| | | | | | Main | Sec | | | | | | |
| 11 | Cracking | - | - | - | | | 0 | Routine Maintenance | | | 3 | |
| 12 | Spalling | - | - | - | | | 1 | Immediate Investigation | | | 4 | |
| 13 | Reinforcement corrosion | - | - | - | | | 2 | Immediate Action | | | 5 | |
| 14 | Other defects | - | - | - | | | | | | | | |
| Comments and recommendations. | | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | | |
|-------------|--|--|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | 31. Poor installation has resulted in significant deformation of the soffit. | 31. Monitor. |
| WATERWAY | 34. * Remaining vegetation covering inlet. 35. * Erosion of inlet TR. | 34. Clear inlet. 35. Fill inlet with riprap D=0.15m |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 18 |
|--------------------------------|----------------------------------|---------------|----------|--------------------------------|-------------|
| Road Name | WAITANGI OWENGA RD | Bridge Name | TE ONE | Displacement | 19158-19764 |
| Bridge Spans/ Culvert Width | 1/5.5 | Road Length | 6 | Deck Width / Culvert Length | 10.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 8.0 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 6/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|---------------|------|------------------|-----|------------------------------|-----------------------------|--|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 2 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | | |
| 9 | Hand or guardrail | 2 | 20 | Decay | - | - | - | - | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | - | - | - | - | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | - | - | - | - | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | - | - | - | - | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | - | - | - | - | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | MARKING SCHEDULE | | | | | |
| | | | | Main | Sec | | | | | | | |
| 11 | Cracking | - | - | - | Not Inspected | | | 0 | Routine Maintenance | | | 3 |
| 12 | Spalling | - | - | - | Satisfactory | | | 1 | Immediate Investigation | | | 4 |
| 13 | Reinforcement corrosion | - | - | - | Monitor | | | 2 | Immediate Action | | | 5 |
| 14 | Other defects | - | - | - | | | | | | | | |
| Comments and recommendations. | | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | YES |

| GENERAL | 9. Excess road metal results in non-compliant barrier. Currently 0.7-1.0m and ideally should be 0.79 for Nugard. Not critical to function. | 9. Monitor. |
|-------------|--|--------------|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | 31. One US mass block is 0.1m out of line. | 31. Monitor. |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 19 |
|--------------------------------|----------------------------------|---------------|---------|--------------------------------|-------------|
| Road Name | WAITANGI OWENGA RD | Bridge Name | HAWAIKI | Displacement | 20980-20988 |
| Bridge Spans/ Culvert Width | 1/8.3 | Road Length | 8 | Deck Width / Culvert Length | 4.8 |
| Bridge Type | TT | Restrictions | Class 1 | Kerb/Rail Width | 4.5 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 6/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|--------|------|------------------|-----|------------------------------|--------------------|---|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | 1 | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | 1 | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | 1 | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | 1 | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | 1 | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | 1 | - | 1 | 32 | River aggrading | | 1 | |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | 1 | - | 1 | 33 | River degrading | | 1 | |
| | | | 22 | Deck wear | 3 | - | 1 | 34 | Waterway adequate | | 1 | |
| | | | 23 | Bolts / spikes | 1 | - | 1 | 35 | Erosion of abuts / approach | | 1 | |
| | | | 24 | Other defects | 1 | - | 2 | 36 | Foundation embedment | | 1 | |
| | | | 25 | Date of last boring | 1 | - | 1 | 37 | Other erosion / scour risks | | 1 | |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | MARKING SCHEDULE | | | | | |
| | | | | | Main | Sec | | | | | | |
| 11 | Cracking | - | - | - | | | 0 | | Routine Maintenance | | 3 | |
| 12 | Spalling | - | - | - | | | 1 | | Immediate Investigation | | 4 | |
| 13 | Reinforcement corrosion | - | - | - | | | 2 | | Immediate Action | | 5 | |
| 14 | Other defects | - | - | - | | | | | | | | |
| Comments and recommendations. | | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | - |

| GENERAL | | |
|-------------|---|---|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | 22. Two running boards are lifting. 24. Some Xbrace blocking is packed at ends and may come loose. | 22. Refix with tekscrews. 24. Monitor. |
| FOUNDATIONS | | |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 20 |
|--------------------------------|----------------------------------|---------------|-------------|--------------------------------|-----------|
| Road Name | WAITANGI OWENGA RD | Bridge Name | LOWER NAIRN | Displacement | 1000-1038 |
| Bridge Spans/ Culvert Width | 6/6.5 | Road Length | 38 | Deck Width / Culvert Length | 5.8 |
| Bridge Type | ST | Restrictions | Class 1 | Kerb/Rail Width | 4.1 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | Yes |
| | | Inspected By | BEP | Date (Time) | 6/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|---------------|------|------------------|-------------------------|------------------------------|--------------------|---|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 2 | 2 | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | 1 | 27 | Cracking | | 2 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | 1 | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | 1 | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | 1 | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 2 | | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | | |
| 9 | Hand or guardrail | 3 | 20 | Decay | 1 | - | - | 32 | River aggrading | | 1 | |
| 10 | Deck drainage | 3 | 21 | Warping / cracking | 1 | - | - | 33 | River degrading | | 1 | |
| | | | 22 | Deck wear | 1 | - | - | 34 | Waterway adequate | | 1 | |
| | | | 23 | Bolts / spikes | 1 | - | - | 35 | Erosion of abuts / approach | | 1 | |
| | | | 24 | Other defects | 1 | - | - | 36 | Foundation embedment | | 1 | |
| | | | 25 | Date of last boring | 1 | - | - | 37 | Other erosion / scour risks | | 1 | |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | MARKING SCHEDULE | | | | | |
| | | | | Main | Sec | | | | | | | |
| 11 | Cracking | - | - | - | Not Inspected | | 0 | Routine Maintenance | | 3 | | |
| 12 | Spalling | - | - | - | Satisfactory | | 1 | Immediate Investigation | | 4 | | |
| 13 | Reinforcement corrosion | - | - | - | Monitor | | 2 | Immediate Action | | 5 | | |
| 14 | Other defects | - | - | - | | | | | | | | |
| Comments and recommendations. | | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| Category | Item | Repair description | Action |
|-------------|----------|---|---|
| GENERAL | 6, 9, 10 | 6. Corbel HD bolts heavily rusted. 9. * Kerb bolts on handrail post heavily rusted. 10. * Debris buildup on deck and US edge. | 6. Monitor for replacement. 9. Replace approx 10 bolts. 10. Clear and waterblast. |
| CONCRETE | | | |
| STEEL/ALUM | 15 | 15. Goldseal continues to lift. Minor breakdown on most spans and some larger patches appearing. | 15. Monitor. |
| TIMBER | | | |
| FOUNDATIONS | 27 | 27. Cracking in caisson tops. | 27 Monitor. |
| WATERWAY | | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 23 |
|--------------------------------|-----------------------------------|---------------|-------------|--------------------------------|-----------|
| Road Name | PORT HUTT ROAD | Bridge Name | WAIKAWA | Displacement | 6502-6505 |
| Bridge Spans/ Culvert Width | 1/2.4 | Road Length | 3 | Deck Width / Culvert Length | 10.0 |
| Bridge Type | CORGA | Restrictions | 50% Class 1 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 7/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | | |
|-------------------------------|-------------------------|---|----|---------------------------|---|---|--------|--------|------------------------------|-----------------------------|--|---|---|
| | | | | | | | Main | Sec | | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 | |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 | |
| 3 | Signs | 3 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 | |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 | |
| 5 | Bearings | 1 | 19 | Other defects | | | 4 | - | 30 | Corrosion of steel | | 1 | |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 2 | |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| | | | | | | | Main | Sec | | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 32 | River aggrading | | 1 | |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 33 | River degrading | | 1 | |
| | | | 22 | Deck wear | - | - | - | - | 34 | Waterway adequate | | 1 | |
| | | | 23 | Bolts / spikes | - | - | - | - | 35 | Erosion of abuts / approach | | 4 | |
| | | | 24 | Other defects | - | - | - | - | 36 | Foundation embedment | | 2 | |
| | | | 25 | Date of last boring | - | - | - | - | 37 | Other erosion / scour risks | | 1 | |
| | | | | MARKING SCHEDULE | | | | | | | | | |
| Comments and recommendations. | | | | Not Inspected | | | | 0 | Routine Maintenance | | | | 3 |
| | | | | Satisfactory | | | | 1 | Immediate Investigation | | | | 4 |
| | | | | Monitor | | | | 2 | Immediate Action | | | | 5 |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | 3. Orange BEMs broken and fallen over. | 3. Reinstate. |
|-------------|--|---|
| CONCRETE | | |
| STEEL/ALUM | 19. * Cover to crown is marginal at DS end (0.34m in 2023). Should be 0.6m min for HNHO72. | 19. Install reinforced fill (eg green teramesh or miragrid or gabions) along road edges to lift cover. |
| TIMBER | | |
| FOUNDATIONS | 31. Batter slopes are very steep at 1:1. | 31. Monitor. |
| WATERWAY | 35. * Unstable road formation and non-compliant cover. 36. Scour hole at outlet. | 35. Extend culvert by 4m each end, or replace full length, or narrow road to suit 0.6m cover. 36. Monitor. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 25 |
|--------------------------------|-----------------------------------|---------------|------------|--------------------------------|-------------|
| Road Name | WAITANGI OWENGA RD | Bridge Name | GILLESPIES | Displacement | 18306-18308 |
| Bridge Spans/ Culvert Width | 1/1.5, 1/2.2 | Road Length | 4 | Deck Width / Culvert Length | 8.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 6/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|----|---------------------------|------------------|---------------------|---------------|--------|------------------------------|-----------------------------|-----------------------------|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 3 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 1 |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| | | | | | | | Main | Sec | | | | |
| 7 | Expansion Joints | 1 | | | | | | | 32 | River aggrading | | 1 |
| 8 | Footways | 1 | | | | | | | 33 | River degrading | | 1 |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 34 | Waterway adequate | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 35 | Erosion of abuts / approach | 2 | 1 |
| | | | 22 | Deck wear | - | - | - | - | 36 | Foundation embedment | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | | |
| | | | | Main | Sec | | | | | | | |
| 11 | Cracking | - | - | - | 23 | Bolts / spikes | - | - | - | 35 | Erosion of abuts / approach | 2 |
| 12 | Spalling | - | - | - | 24 | Other defects | - | - | - | 36 | Foundation embedment | 1 |
| 13 | Reinforcement corrosion | - | - | - | 25 | Date of last boring | - | - | - | 37 | Other erosion / scour risks | 1 |
| 14 | Other defects | - | - | - | MARKING SCHEDULE | | | | | | | |
| Comments and recommendations. | | | | | | | Not Inspected | 0 | Routine Maintenance | | | 3 |
| | | | | | | | Satisfactory | 1 | Immediate Investigation | | | 4 |
| | | | | | | | Monitor | 2 | Immediate Action | | | 5 |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | YES |

| GENERAL | 2. No BEMs on sight rail. | 2. Install new. |
|-------------|--|-----------------|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | | |
| WATERWAY | 35. Scour at outlet beside culvert barrel. | 35. Monitor. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | 26 |
|--------------------------------|-----------------------------------|---------------|----------|--------------------------------|-------------|
| Road Name | NORTH ROAD | Bridge Name | WAITAHA | Displacement | 25351-25353 |
| Bridge Spans/ Culvert Width | 1/2.4 | Road Length | 3 | Deck Width / Culvert Length | 12.0 |
| Bridge Type | CORGA | Restrictions | HN-HO-72 | Kerb/Rail Width | 0.0 |
| Culvert (Y/N) | Yes (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|----|---------------------------|--------|---|------------------|--------|------------------------------|-----------------------------|--|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 1 | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | | 1 | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 3 | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 2 |
| | | | | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| | | | | | | | Main | Sec | | | | |
| 7 | Expansion Joints | 1 | | | | | | | 32 | River aggrading | | 1 |
| 8 | Footways | 1 | | | | | | | 33 | River degrading | | 1 |
| 9 | Hand or guardrail | 1 | 20 | Decay | - | - | - | - | 34 | Waterway adequate | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | - | - | - | - | 35 | Erosion of abuts / approach | | 1 |
| | | | 22 | Deck wear | - | - | - | - | 36 | Foundation embedment | | 1 |
| | | | 23 | Bolts / spikes | - | - | - | - | 37 | Other erosion / scour risks | | 1 |
| | | | 24 | Other defects | - | - | - | - | | | | |
| | | | 25 | Date of last boring | - | - | - | - | | | | |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | MARKING SCHEDULE | | | | | |
| | | | | Main | Sec | | | | | | | |
| 11 | Cracking | - | - | - | | | 0 | | | Routine Maintenance | | 3 |
| 12 | Spalling | - | - | - | | | 1 | | | Immediate Investigation | | 4 |
| 13 | Reinforcement corrosion | - | - | - | | | 2 | | | Immediate Action | | 5 |
| 14 | Other defects | - | - | - | | | | | | | | |
| Comments and recommendations. | | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | | |
|-------------|--|---------------------|
| CONCRETE | | |
| STEEL/ALUM | 19. * Cover to crown is marginal at US end (0.52m in 2023). Should be 0.6m min for HNHO72. | 19. Increase cover. |
| TIMBER | | |
| FOUNDATIONS | 31. Poor installation has resulted in significant deformation of the soffit. | 31. Monitor. |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | P1 |
|--------------------------------|----------------------------------|---------------|-----------|--------------------------------|------------|
| Road Name | FLOWER POT TO GLORY | Bridge Name | WAIPAPAKU | Displacement | 7846-7854 |
| Bridge Spans/ Culvert Width | 1/8.6 | Road Length | 8 | Deck Width / Culvert Length | 3.7 |
| Bridge Type | TT | Restrictions | Class 1 | Kerb/Rail Width | 3.4 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 17-18 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 21/02/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|------------------|------|--------|-------------------------|------------------------------|--------------------|---|
| | | | | | | | Main | Sec | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | - | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | - | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | - | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | - | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 2 | 19 | Other defects | | - | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | | Member | | WATERWAY AND SCOUR | |
| 8 | Footways | 1 | | | | Main | Sec | | | | |
| 9 | Hand or guardrail | 3 | 20 | Decay | 1 | 1 | 1 | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 3 | 21 | Warping / cracking | 1 | 1 | 1 | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 1 | 1 | 1 | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | 1 | 1 | 1 | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | 1 | 1 | 1 | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | 1 | 1 | 1 | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | |
| | | | | Main | Sec | | | | | | |
| 11 | Cracking | - | - | - | MARKING SCHEDULE | | | | | | |
| 12 | Spalling | - | - | - | Not Inspected | | 0 | Routine Maintenance | | 3 | |
| 13 | Reinforcement corrosion | - | - | - | Satisfactory | | 1 | Immediate Investigation | | 4 | |
| 14 | Other defects | - | - | - | Monitor | | 2 | Immediate Action | | 5 | |
| Comments and recommendations. | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | YES |

| GENERAL | 5. Debris on beam bearings. 9. DS kerb has 2No M12 bolt which are undersized. 10. Debris build-up on deck. | 5. Monitor. 9. Replace with M16 bolts. 10. Clear |
|-------------|--|--|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | | |
| FOUNDATIONS | | |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | P2 |
|--------------------------------|----------------------------------|---------------|-------------|--------------------------------|------------|
| Road Name | FLOWER POT TO GLORY | Bridge Name | WAIPAUA | Displacement | 9845-9854 |
| Bridge Spans/ Culvert Width | 1/8.9 | Road Length | 9 | Deck Width / Culvert Length | 3.7 |
| Bridge Type | TT | Restrictions | 60% Class 1 | Kerb/Rail Width | 3.4 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 17-18 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 21/02/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|------------------|--------|--------|-------------------------|------------------------------|--------------------|---|
| | | | | | | | Main | Sec | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | - | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 3 | 16 | Corrosion | | - | - | 27 | Cracking | | 1 |
| 3 | Signs | 3 | 17 | Joints | | - | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | - | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | - | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | | Member | | WATERWAY AND SCOUR | |
| 8 | Footways | 1 | | | | Main | Sec | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | 1 | 3 | 1 | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | 1 | 2 | 1 | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 2 | 1 | 1 | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | 1 | 1 | 1 | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | 1 | 1 | 1 | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | 1 | 1 | 1 | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | | Member | | | | | |
| | | | | | | Main | Sec | | | | |
| 11 | Cracking | - | - | - | MARKING SCHEDULE | | | | | | |
| 12 | Spalling | - | - | - | Not Inspected | | 0 | Routine Maintenance | | 3 | |
| 13 | Reinforcement corrosion | - | - | - | Satisfactory | | 1 | Immediate Investigation | | 4 | |
| 14 | Other defects | - | - | - | Monitor | | 2 | Immediate Action | | 5 | |
| Comments and recommendations. | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| GENERAL | 2. Potholes in north approach. 3. Posting signage fallen over. | 2. Fill/repair. 3. Reinstate signage. |
|-------------|--|--|
| CONCRETE | | |
| STEEL/ALUM | | |
| TIMBER | 20. * Excess debris on bearing shelf. 21. Longitudinal crack in outer beams. 22. Deck wearing. | 20. Clear. 21. Monitor. 22. Monitor. |
| FOUNDATIONS | | |
| WATERWAY | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | P3 |
|--------------------------------|----------------------------------|---------------|-------------|--------------------------------|------------|
| Road Name | NORTH HEAD ROAD | Bridge Name | NORTH HEAD | Displacement | 1790-1795 |
| Bridge Spans/ Culvert Width | 1/4.8 | Road Length | 5 | Deck Width / Culvert Length | 3.7 |
| Bridge Type | TT | Restrictions | 70% Class 1 | Kerb/Rail Width | 3.4 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 17-18 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 21/02/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|---------------|------|------------------|-------------------------|------------------------------|--------------------|---|
| | | | | | | | Main | Sec | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | - | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | - | - | 27 | Cracking | | 1 |
| 3 | Signs | 1 | 17 | Joints | | - | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | - | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | - | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | | Member | | WATERWAY AND SCOUR | |
| 8 | Footways | 1 | | | | | Main | Sec | | | |
| 9 | Hand or guardrail | 3 | 20 | Decay | 1 | 3 | 1 | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 3 | 21 | Warping / cracking | 1 | 1 | 1 | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 1 | 1 | 1 | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | 1 | 1 | 1 | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | 1 | 1 | 1 | 36 | Foundation embedment | | 1 |
| | | | 25 | Date of last boring | 1 | 1 | 1 | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | MARKING SCHEDULE | | | | |
| | | | | Main | Sec | | | | | | |
| 11 | Cracking | - | - | - | Not Inspected | | 0 | Routine Maintenance | | 3 | |
| 12 | Spalling | - | - | - | Satisfactory | | 1 | Immediate Investigation | | 4 | |
| 13 | Reinforcement corrosion | - | - | - | Monitor | | 2 | Immediate Action | | 5 | |
| 14 | Other defects | - | - | - | | | | | | | |
| Comments and recommendations. | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | NO |

| Category | Item | Repair description | Action |
|-------------|--|--------------------|---|
| GENERAL | 9. * Kerb blocks rotating. 10. Debris build-up on deck. | | 9. Add 2nd bolt to all blocks. 10. Deck renewed in 2018. |
| CONCRETE | | | |
| STEEL/ALUM | | | |
| TIMBER | 20. * Beams decaying at supports and approach fill not retained. | | 20. Install new backing boards to both abutments. |
| FOUNDATIONS | | | |
| WATERWAY | | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | P4 |
|--------------------------------|----------------------------------|---------------|---------------|--------------------------------|------------|
| Road Name | FLOWER POT TO GLORY | Bridge Name | THISTLE CLEAR | Displacement | 1576-1580 |
| Bridge Spans/ Culvert Width | 1/4.0 | Road Length | 4 | Deck Width / Culvert Length | 3.9 |
| Bridge Type | TT | Restrictions | 80% Class 1 | Kerb/Rail Width | 3.6 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 17-18 | Boat/Tide Acc | No |
| | | Inspected By | BEP | Date (Time) | 21/02/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|---------|------|--------|-----|------------------------------|--|---|
| | | | | | | | Main | Sec | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | - | - | 26 | Settlement | | 2 |
| 2 | Approach adequacy | 3 | 16 | Corrosion | | - | - | 27 | Cracking | | 1 |
| 3 | Signs | 3 | 17 | Joints | | - | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | - | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | - | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 2 | | | | | | 31 | Other defects | | 2 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | 1 | 1 | 1 | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 3 | 21 | Warping / cracking | 1 | 2 | 1 | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 2 | 1 | 1 | 34 | Waterway adequate | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | 23 | Bolts / spikes | 1 | 1 | 1 | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | 1 | 1 | 1 | 36 | Foundation embedment | | 1 |
| 11 | Cracking | - | 25 | Date of last boring | 1 | 1 | 1 | 37 | Other erosion / scour risks | | 1 |
| 12 | Spalling | - | MARKING SCHEDULE | | | | | | | | |
| 13 | Reinforcement corrosion | - | | Not Inspected | | 0 | | | Routine Maintenance | | 3 |
| 14 | Other defects | - | | Satisfactory | | 1 | | | Immediate Investigation | | 4 |
| Comments and recommendations. | | | | | Monitor | | 2 | | Immediate Action | | 5 |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | YES |

| Category | Item | Repair description | Action |
|-------------|------|--|-----------------------|
| GENERAL | 2. | Pothole on southern approach. | 2. Fill/repair. |
| | 3. | No posting signage. | 3. Reinstate signage. |
| | 6. | Holddown straps are heavily rusted. | 6. Monitor. |
| CONCRETE | 10. | Debris build-up on deck. | 10. Clear. |
| | | | |
| STEEL/ALUM | | | |
| TIMBER | 21. | Crack in outer beams. | 21. Monitor. |
| | 22. | Deck deteriorating. | 22. Monitor. |
| FOUNDATIONS | 26. | Both abutments show signs of movement/ slumping. | 26. Monitor. |
| | 31. | Abutments and wingwalls have gaps and possible loss of fill. | 31. Monitor. |
| WATERWAY | | | |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | W1 |
|--------------------------------|----------------------------------|---------------|--------------|--------------------------------|-----------|
| Road Name | OWENGA WHARF ROAD | Bridge Name | OWENGA WHARF | Displacement | 350 (EOR) |
| Bridge Spans/ Culvert Width | 12/4.6, 1/4.1, 8/2.3 | Road Length | 76 | Deck Width / Culvert Length | 4.0 |
| Bridge Type | TT | Restrictions | Class 1 | Kerb/Rail Width | 3.7 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | Yes |
| | | Inspected By | BEP | Date (Time) | 6/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|------------------|------|--------|-------------------------|------------------------------|---|---|
| | | | | | | | Main | Sec | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | - | - | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | - | - | 27 | Cracking | | 2 |
| 3 | Signs | 1 | 17 | Joints | | - | - | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | - | - | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | - | - | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | 31 | Other defects | | 1 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | |
| 9 | Hand or guardrail | 2 | 20 | Decay | 1 | 1 | 1 | 32 | River aggrading | | 1 |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | 1 | 1 | 1 | 33 | River degrading | | 1 |
| | | | 22 | Deck wear | 1 | 1 | 1 | 34 | Waterway adequate | | 1 |
| | | | 23 | Bolts / spikes | 1 | 1 | 1 | 35 | Erosion of abuts / approach | | 1 |
| | | | 24 | Other defects | 3 | 1 | 1 | 36 | Foundation embedment | | 2 |
| | | | 25 | Date of last boring | 1 | 1 | 1 | 37 | Other erosion / scour risks | | 1 |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | | | | | |
| | | | | | Main | Sec | | | | | |
| 11 | Cracking | - | - | - | MARKING SCHEDULE | | | | | | |
| 12 | Spalling | - | - | - | Not Inspected | | 0 | Routine Maintenance | | 3 | |
| 13 | Reinforcement corrosion | - | - | - | Satisfactory | | 1 | Immediate Investigation | | 4 | |
| 14 | Other defects | - | - | - | Monitor | | 2 | Immediate Action | | 5 | |
| Comments and recommendations. | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | YES |

| Category | Item | Repair description | Action |
|-------------|------|---|---|
| GENERAL | 9. | Lower platform ladder damaged. | 9. Monitor. |
| CONCRETE | | | |
| STEEL/ALUM | | | |
| TIMBER | 24. | Slip grip netting has failed. | 24. Continue water blasting at regular intervals to remove algae and dirt (alternative option to install s/steel mesh test patch 4x4m (40x40x3.15 mesh)). |
| FOUNDATIONS | 27. | Two bollards on west side heavily worn by rope wear. | 27. Avoid overnight mooring and monitor. |
| WATERWAY | 36. | Underwater inspection of piles required every 6-8yrs. Last done 2017. | 36. Repeat in 2025. |

Bridge Inspection Form

| BRIDGE DATA TABLE | | | | BRIDGE ID | W2 |
|--------------------------------|----------------------------------|---------------|-----------------|--------------------------------|------------|
| Road Name | KAINGAROA ROAD | Bridge Name | KAINGAROA WHARF | Displacement | 6475 (EOR) |
| Bridge Spans/ Culvert Width | 4/5.5, 5/12.0, 2/6.0 | Road Length | 94 | Deck Width / Culvert Length | 2.0 |
| Bridge Type | TT & ST | Restrictions | Closed | Kerb/Rail Width | 1.7 |
| Culvert (Y/N) | No (Culvert has solid invert) | Previous Insp | 21-22 | Boat/Tide Acc | Yes |
| | | Inspected By | BEP | Date (Time) | 5/12/2023 |

| GENERAL | | | | SUPERSTRUCTURE STEEL/ALUM | | | Member | | FOUNDATIONS AND SUBSTRUCTURE | | | |
|---------------------------------|-------------------------|---|-----------------------|---------------------------|--------|------|------------------|-----|------------------------------|-------------------------|---|---|
| | | | | | | | Main | Sec | | | | |
| 1 | Appearance | 1 | 15 | Paint condition | | | 1 | 1 | 26 | Settlement | | 1 |
| 2 | Approach adequacy | 1 | 16 | Corrosion | | | 4 | 1 | 27 | Cracking | | 1 |
| 3 | Signs | 4 | 17 | Joints | | | 1 | 1 | 28 | Spalling | | 1 |
| 4 | Vibration | 1 | 18 | Rivets / bolts | | | 1 | 1 | 29 | Abrasion | | 1 |
| 5 | Bearings | 1 | 19 | Other defects | | | 1 | 1 | 30 | Corrosion of steel | | 1 |
| 6 | H.D. bolts and linkages | 1 | | | | | | | 31 | Other defects | | 4 |
| 7 | Expansion Joints | 1 | SUPERSTRUCTURE TIMBER | | | Deck | Member | | WATERWAY AND SCOUR | | | |
| 8 | Footways | 1 | | | | Main | Sec | | | | | |
| 9 | Hand or guardrail | 1 | 20 | Decay | 1 | 1 | 1 | 32 | River aggrading | | 1 | |
| 10 | Deck drainage | 1 | 21 | Warping / cracking | 1 | 1 | 1 | 33 | River degrading | | 1 | |
| | | | 22 | Deck wear | 1 | 1 | 1 | 34 | Waterway adequate | | 1 | |
| | | | 23 | Bolts / spikes | 1 | 1 | 1 | 35 | Erosion of abuts / approach | | 1 | |
| | | | 24 | Other defects | 4 | 4 | 4 | 36 | Foundation embedment | | 1 | |
| | | | 25 | Date of last boring | 1 | 1 | 1 | 37 | Other erosion / scour risks | | 1 | |
| SUPERSTRUCTURE CONCRETE/MASONRY | | | | Deck | Member | | MARKING SCHEDULE | | | | | |
| | | | | | Main | Sec | | | | | | |
| 11 | Cracking | - | - | - | | | 0 | | | Routine Maintenance | | 3 |
| 12 | Spalling | - | - | - | | | 1 | | | Immediate Investigation | | 4 |
| 13 | Reinforcement corrosion | - | - | - | | | 2 | | | Immediate Action | | 5 |
| 14 | Other defects | - | - | - | | | | | | | | |
| Comments and recommendations. | | | | | | | | | | | | |

| Item | Repair description | Action |
|------|--|--------|
| * | Remedial work from last inspection completed? Y / N (provide detail) | YES |

| | | |
|-------------|--|--|
| GENERAL | 3. Structure is currently closed due to very poor condition, but continues to be used by locals who have no other practical means of boat access. Makesafe works complete. | 3. Monitor for signs of imminent failure. |
| CONCRETE | - | - |
| STEEL/ALUM | 16. All steel members have meadium to heavy corrosion and significant section loss in many places. Makesafe works complete. | 16. Monitor for signs of imminent failure. |
| TIMBER | 24. All of the timber spans in the shoreward section have poor connections and poor supports. Makesafe works complete. | 24. Monitor for signs of imminent failure. |
| FOUNDATIONS | 31. The timber pliers in the shoreward section are in poor condition. Makesafe works complete. | 31. Monitor for signs of imminent failure. |
| WATERWAY | - | - |

Appendix E Bridge Capacity Register



Chatham Island Council
Bridge Inspections - Capacity Summary Table

Date 11/01/24
By BEP

| Brg No. | Order | Road | Name | Type | Span | Built | Capacity | Verified | Culvert Cover | As-built Details |
|---------|-------|---------------------|-----------------|---------|------|-------|-------------|----------|---------------|------------------|
| 1 | 3.02 | Port Hutt | Whangatete | Culvert | 2.7 | 2009 | HN-HO-72 | 2010 | 3.43 | yes |
| 2 | 3.03 | Port Hutt | Whangamoe | Culvert | 3.1 | 2023 | HN-HO-72 | 2023 | 0.90 | yes |
| 3 | 3.04 | Waitangi West | Washout | Bridge | 10.4 | 1990 | Class 1 | 2014 | n/a | yes |
| 5 | 5.01 | Maipito | Maipito | Bridge | 15.3 | 1974 | 50% Class I | 2014 | n/a | yes |
| 6 | 2.02 | North | Waipapa | Culvert | 3.3 | 2004 | HN-HO-72 | 2016 | 0.69 | yes |
| 7 | 2.04 | Kaiwhata | Kaiwhata | Culvert | 1.5 | 2000 | HN-HO-72 | 2016 | 0.55 | yes |
| 8 | 6.01 | Airbase | Waikato | Culvert | 3.0 | 2019 | HN-HO-72 | 2019 | 0.78 | yes |
| 9 | 4.01 | Tuku | Matakatau | Culvert | 2.7 | 1999 | HN-HO-72 | 2016 | 0.66 | yes |
| 10 | 4.02 | Tuku | Awamata | Bridge | 4.3 | 1979 | Class 1 | 2014 | n/a | yes |
| 11 | 4.03 | Tuku | Awatotara | Culvert | 4.3 | 2006 | HN-HO-72 | 2006 | 0.76 | yes |
| 12 | 4.04 | Tuku | Kiringe | Bridge | 4.3 | 1978 | Class 1 | 2014 | n/a | yes |
| 13 | 4.05 | Tuku | Tuku | Bridge | 10.2 | 1988 | Class 1 | 2014 | n/a | yes |
| 14 | 1.02 | Waitangi - Owenga | Mangape | Culvert | 3.0 | 1994 | HN-HO-72 | 2014 | 0.75 | yes |
| 15 | 1.03 | Waitangi - Owenga | Te Awainanga | Bridge | 13.1 | 1978 | Class 1 | 2010 | n/a | yes |
| 16 | 1.04 | Waitangi - Owenga | Mangahou | Culvert | 3.7 | 2005 | HN-HO-72 | 2010 | 1.03 | yes |
| 17 | 1.05 | Waitangi - Owenga | Kahiti | Culvert | 2.2 | 1991 | HN-HO-72 | 2010 | 1.99 | yes |
| 18 | 1.07 | Waitangi - Owenga | Te One | Culvert | 5.5 | 2015 | HN-HO-72 | 2015 | 0.95 | yes |
| 19 | 1.08 | Waitangi - Owenga | Hawaiki | Bridge | 8.3 | 1973 | Class 1 | 2012 | n/a | yes |
| 20 | 1.01 | Waitangi - Owenga | Lower Nairn | Bridge | 6.5 | 1979 | Class 1 | 2009 | n/a | yes |
| 23 | 3.01 | Port Hutt | Waikawa | Culvert | 2.4 | 2009 | 50% Class I | 2015 | 0.26 | yes |
| 24 | 1.07 | Waitangi - Owenga | TBC Unnamed | Culvert | 2.3 | 2022 | HN-HO-72 | 2021 | chk | no |
| 25 | 1.06 | Waitangi - Owenga | Gillespies | Culvert | 2.5 | 2022 | HN-HO-72 | 2021 | chk | no |
| 26 | 2.03 | North | Waitaha | Culvert | 2.4 | 2021 | HN-HO-72 | 2021 | 0.48 | no |
| P1 | 7.01 | Flower Pot to Glory | Waipapaku | Bridge | 7.9 | 2018 | Class 1 | 2019 | n/a | yes |
| P2 | 7.02 | Flower Pot to Glory | Waipaua | Bridge | 8.9 | 1972 | 60% Class I | 2019 | n/a | yes |
| P3 | 7.03 | North Head | North Head | Bridge | 4.0 | 1972 | 70% Class I | 2019 | n/a | yes |
| P4 | 7.04 | Flower Pot to Glory | Thistle Clear | Bridge | 4.0 | 1993 | 80% Class I | 2019 | n/a | yes |
| W1 | 1.09 | Owenga Wharf | Owenga Wharf | Wharf | 4.6 | 2009 | Class 1 | 2009 | na | yes |
| W2 | 2.05 | Kaingaroa | Kaingaroa Wharf | Wharf | 12.0 | 1989 | Closed | 2021 | n/a | no |

Appendix F Minor Culvert Sizing/Installation



Chathams - Minor Culvert Sizing

Chatham Islands - Minor Culvert Sizing**Assumptions**

- model catchment sizes 0 to 1km²
- adopt average slope of 4%
- use TOC 10min for small catchments (approx 0km²)
- use TOC 45min for large catchments (approx 1km²)
- Manning n = 0.035
- outlet control adopt HL = 0.2m and
- inlet control adopt HW = D + 0.5m (0.1m freeboard, not compliant with TNZBM)
- allow 30% increase in catchment size for culverts under road grades 3&4

Return Periods

- design small catchments for AEP 10 years
- design large catchments for AEP 25 years
- no allowance for climate change
- accept overtopping for larger flood events

Resulting criteria

| | Small | Large |
|--------------------------|-------|-----------------------|
| Catchment area | 0 | 1 km ² |
| Flow per km ² | 7 | 4.6 m ³ /s |

Equations

$$q = (7 - 2.4 * \text{Area})$$

$$Q = (7 - 2.4 * \text{Area}) * \text{Area}$$

$$A = 0.0065Q^3 - 0.0156Q^2 + 0.1656Q$$

(for flow above 4.6m³/s use A = Flow / 4.6)

Chathams - Minor Culvert Sizing

Pipe selection table based on estimated catchment area
- for use on swale-in to swale-out waterways (assumed outlet controlled)

| Pipe ID | For use on swale to swale (assumed outlet control) | | | | Pipe Description & Nominal Sizing |
|---------|---|------------|-----------|-----------|--------------------------------------|
| | Flow | Area | Grade | Grade | |
| | Qoc m3/s | Aoc km2 | 1&2 Ha | 3&4 Ha | |
| 225 | 0.05 | 0.008 | 0.8 | 1.1 | Civilboss 225 nom |
| 300 | 0.09 | 0.015 | 1.5 | 1.9 | Civilboss 300 nom |
| 375 | 0.15 | 0.025 | 2.5 | 3.2 | Civilboss 375 nom |
| 450 | 0.22 | 0.036 | 3.6 | 4.6 | Civilboss 450 nom |
| 535 | 0.32 | 0.052 | 5.2 | 6.7 | Euroflo 630 nom |
| 675 | 0.53 | 0.084 | 8.4 | 11.0 | Euroflo 800 nom |
| 850 | 0.86 | 0.135 | 13.5 | 17.6 | Euroflo 1000 nom |
| 1030 | 1.29 | 0.202 | 20.2 | 26.2 | Euroflo 1200 nom |
| 1500 | 2.24 | 0.366 | 36.6 | 47.5 | Armco 1500 bolted pipe |

Pipe selection table based on estimated catchment area
- for use on swale-in to natural waterways downstream (s>2%, assumed inlet control)

| Pipe ID | For use on d/s natural streams (assumed inlet control) | | | | Pipe Description & Nominal Sizing |
|---------|---|------------|------------|------------|--------------------------------------|
| | Flow | Area | Grade | Grade | |
| | Qic m3/s | Aic km2 | G1&2 Ha | G3&4 Ha | |
| 225 | 0.09 | 0.015 | 1.5 | 1.9 | Civilboss 225 nom |
| 300 | 0.12 | 0.020 | 2.0 | 2.6 | Civilboss 300 nom |
| 375 | 0.22 | 0.036 | 3.6 | 4.6 | Civilboss 375 nom |
| 450 | 0.36 | 0.058 | 5.8 | 7.5 | Civilboss 450 nom |
| 535 | 0.50 | 0.080 | 8.0 | 10.4 | Euroflo 630 nom |
| 675 | 0.87 | 0.137 | 13.7 | 17.8 | Euroflo 800 nom |
| 850 | 1.45 | 0.227 | 22.7 | 29.5 | Euroflo 1000 nom |
| 1030 | 2.15 | 0.349 | 34.9 | 45.3 | Euroflo 1200 nom |
| 1500 | 5.00 | 1.087 | 108.7 | 141.3 | Armco 1500 bolted pipe |

Notes

One Hectare (1 Ha) is equal to an area 100m x 100m

For road grades 3 and 4 allow a 30% increase in catchment area

All plastic pipes shall be SN16 rating

All Armco pipes shall be 3mm alum 10 bolts per meter

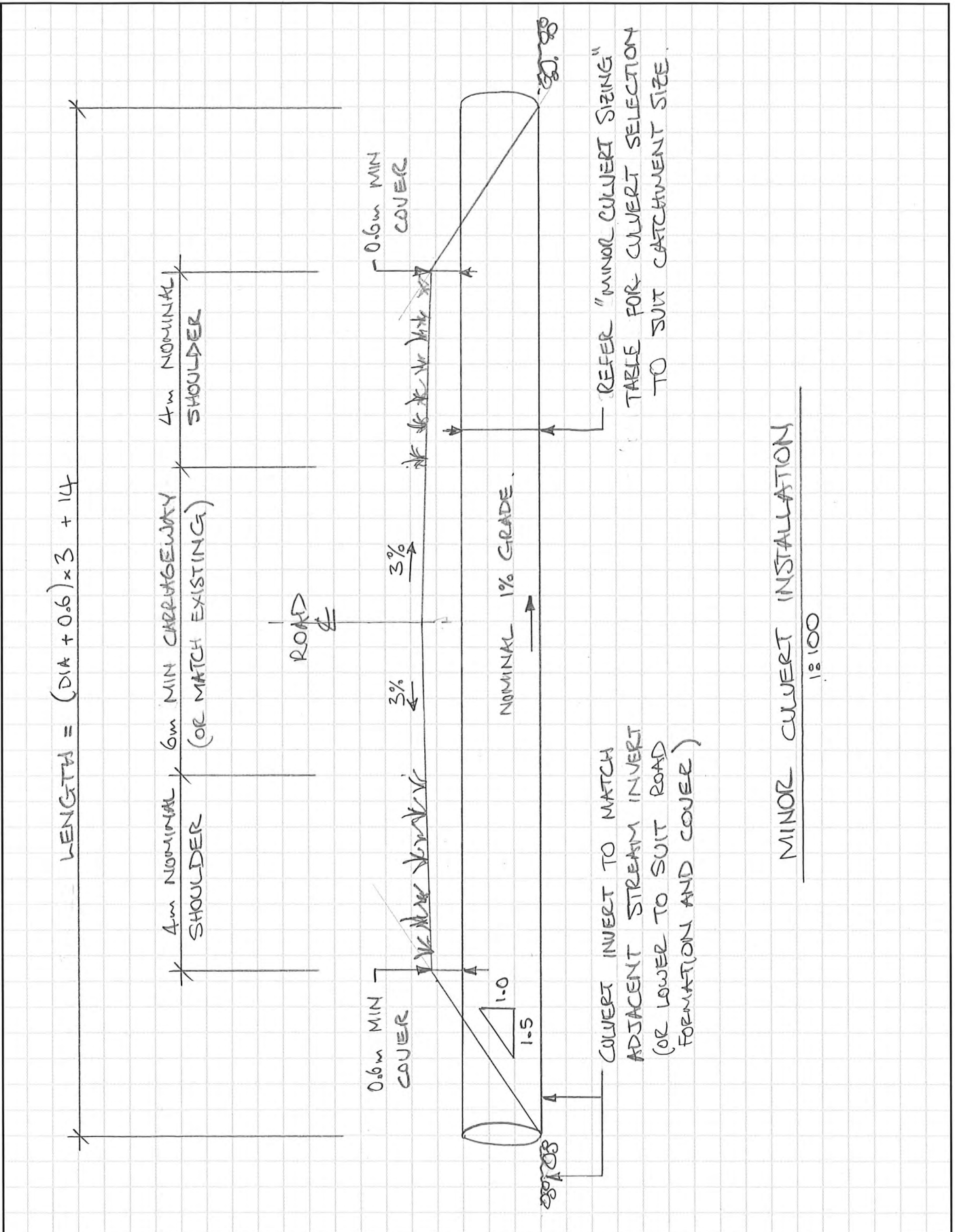
Refer to Stantec for specific check if catchment > 1.1km² for grade 1/2 roads

Refer to Stantec for specific check if catchment > 1.4km² for grade 3/4 roads

Install in accordance with suppliers specification/recommendation



PROJECT CIC BRIDGES PROJECT NO. _____
 DESCRIPTION MINOR CULVERT DETAIL
 PREPARED BY BEP DATE 19/12/2017
 CHECKED BY _____ DATE _____
 REF/DWGS _____ SHEET _____ OF _____



Appendix G Inspection Photos (USB)



CREATING COMMUNITIES

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of belonging. That's why at Stantec, we always **design with community in mind**.

We care about the communities we serve—because they're our communities too. We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

New Zealand offices:

Alexandra, Auckland, Balclutha, Christchurch,
Dunedin, Gisborne, Greymouth, Hamilton, Hastings,
Nelson, Palmerston North, Queenstown, Tauranga,
Wellington, Whangārei





6. Regulatory

6.1 Decision Resource Consent (CIC-2024-001)

| | |
|---------------------------|--|
| Date of meeting | 2 May 2024 |
| Agenda item number | 6.1 |
| Author/s | Colleen Clearwater, Regulatory Officer |

Purpose

The decision of Sharon McGarry, Independent Commissioner, appointed by Chatham Islands Council to decide the application by Chatham Islands Council to erect a barge loading facility adjacent to the Owenga Wharf, Owenga, Chatham Island.

Recommendations

THAT the information be received.

Background

An application for resource consent from Chatham Islands Council had been received to erect a barge loading facility adjacent to the Owenga Wharf, Owenga, Chatham Islands.

As the application was from Council it had been forwarded to Independent Commissioner Sharon McGarry to determine the outcome.

Ms McGarry's decision is to grant the application as set out in the attached document.

Attachments

1. Decision of Independent Commissioner Sharon McGarry
2. Application Resource Consent CIC/2024/001 Chatham Islands Council
3. Plan 1
4. Plan 2

**chatham islands council**

9 Tuku Road
PO Box 24
Waitangi
CHATHAM ISLANDS 8942

Phone: 03 3050 033
Email: info@cic.govt.nz
www.cic.govt.nz
facebook.com/cicnz/

9th April 2024

Chatham Islands Council

C/- Stantec New Zealand

PO Box 13 052 Christchurch

Attention : April Peckham

Dear April,

Notice of Resource Consent Decision

Record Number: CIC/2024/001

Applicant Name: Chatham Islands Council

Activity Description: To erect a barge loading facility adjacent to the Owenga Wharf, Owenga, Chatham Island.

Decision: Granted on 9th April 2024

Decision

The decision of Sharon McGarry, Independent Commissioner, appointed by Chatham Islands Council to decide your application is to grant your application as set out in the attached document.

Commencement of consent

Your resource consent commences from the date of this letter advising you of the decision.

If you object to or appeal this decision, the commencement date will then be the date on which the decision on the appeal is determined.

Lapsing of consent

This resource consent will lapse if the activity is not established or used before the lapse date of 9th April 2029. If you require more time in which to start the activity you can apply to extend the lapse date provided your request is received by Chatham Islands Council before 9th April 2029.

Your rights of objection and appeal

- **Objection to Decision**

If you do not agree with the decision of the consent authority, you may object to the whole or any part in accordance with Section 357A(1)(g) of the Resource Management Act 1991 (RMA). Notice of any objection must be in writing and lodged with Chatham Islands Council within 15 working days of receipt of this decision in accordance with Section 357C(1) of the RMA.

- **Right to Appeal**

You may appeal the decision of the consent authority to the Environment Court in accordance with section 120 of the RMA. The notice of appeal must be lodged with the Court within 15 working days of receipt of this decision, at PO Box 2069, Christchurch. A copy of the appeal should also be forwarded to Chatham Islands Council within the same timeframe.

If you are in any doubt about the correct procedures, you should seek legal advice.

Yours faithfully



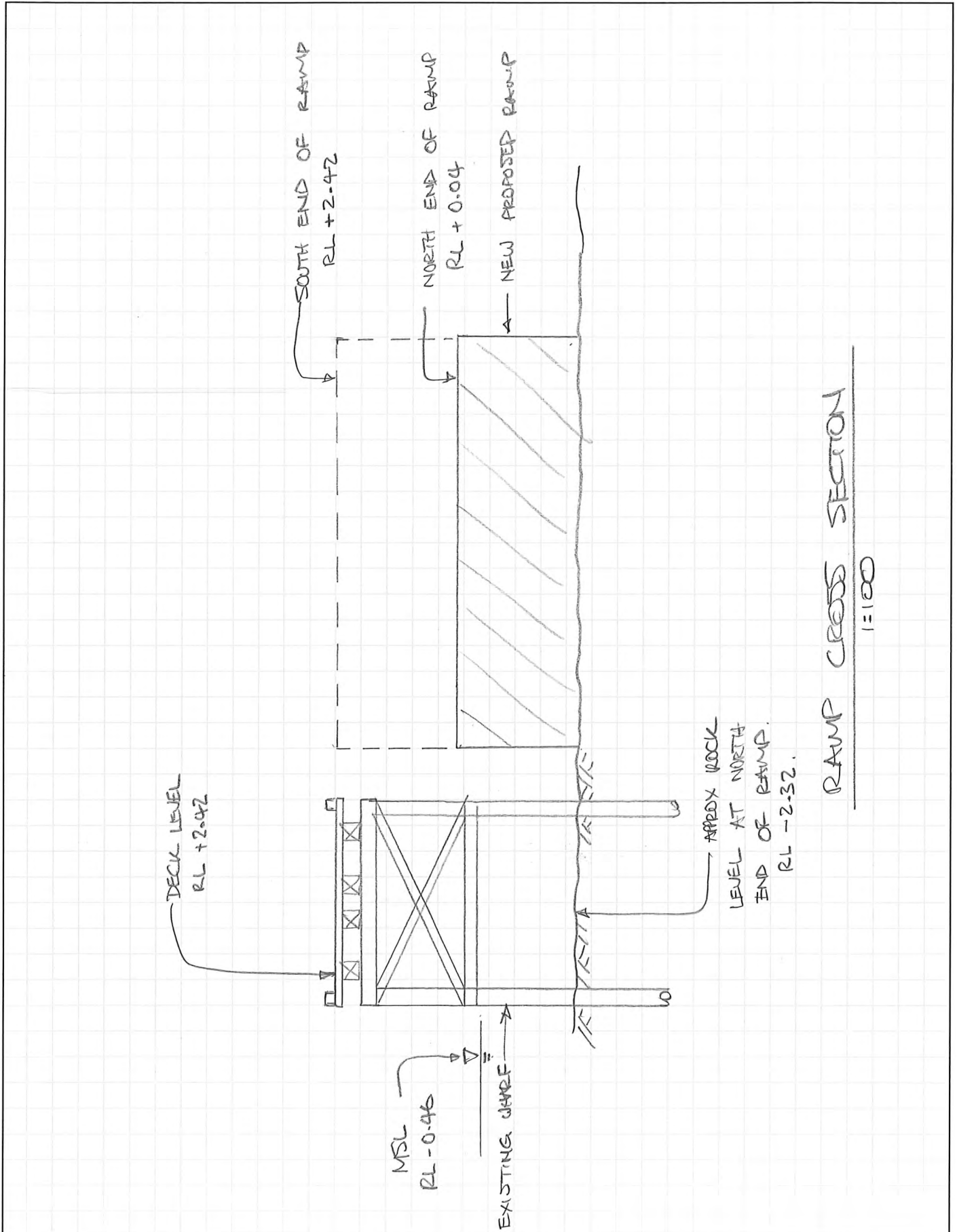
Paul Eagle

Chief Executive Officer

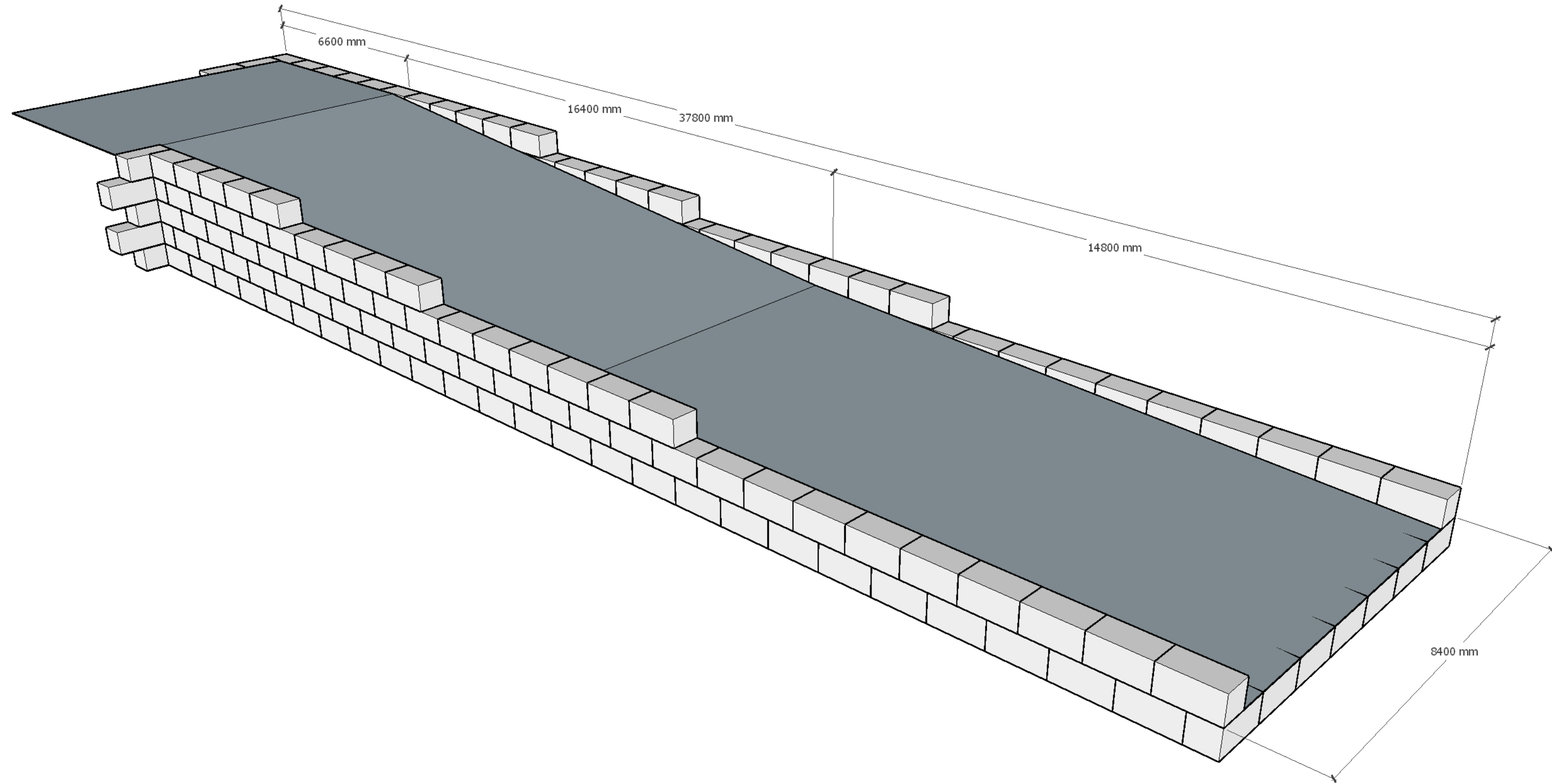
For a copy of the Owenga Barge Ramp application, please contact Chatham Islands Council - Phone 03 3050033 or email - info@chathamislands.govt.nz

PROJECT Owanga Ramp PROJECT NO _____
 DESCRIPTION _____
 PREPARED BY ZEP DATE 18/03/24
 CHECKED BY _____ DATE _____
 REF/DWGS _____ SHEET _____ OF _____

PLAN 1



PLAN 2



Public Excluded Agenda

2 May 2024

Mayor to Move

I move that the public be excluded from the following part of the proceedings of the 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:

| Item No. | Minutes / Report of: | 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 the passing of this resolution |
|----------|----------------------|---|---|--|
| 1. | Chief Executive | Public Excluded Minutes 14 March 2024 | Good reason to withhold exists under Section 7 | Section 48(1)(a) |
| 2. | Chief Executive | CIHPT Housing Update | Good reason to withhold exists under Section 7 | Section 48(1)(a) |

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 holding the whole or relevant part of the proceedings of the meeting in public, are as follows:

| Item Nos | |
|----------|---|
| 1. | Would be likely to prejudice the commercial position of the person or persons who are the subject of the information. 7(2)(b)(ii) To maintain legal professional privilege. 7(2)(h) To enable the Council holding the information to carry out, without prejudice or disadvantage, commercial activities. 7(2)(i) |
| 2. | Would be likely to prejudice the commercial position of the person or persons who are the subject of the information. 7(2)(b)(ii) |

and that appropriate officers remain to provide advice to the Committee.