



**I, Kitea Tipuna, Tumu Whakarae Chief Executive, hereby give notice that
Finance, Audit & Risk Committee Meeting will be held on:**

Date: Tuesday, 17 August 2021
Time: 12.30pm
Location: Council Chamber, Wairoa District Council,
Coronation Square, Wairoa

AGENDA

Finance, Audit & Risk Committee Meeting

17 August 2021

The agenda and associated papers are also available on our website: www.wairoadc.govt.nz

For further information please contact us 06 838 7309 or by email info@wairoadc.govt.nz

Order Of Business

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- 1 KARAKIA**
- 2 APOLOGIES FOR ABSENCE**
- 3 DECLARATIONS OF CONFLICT OF INTEREST**
- 4 CHAIRPERSON'S ANNOUNCEMENTS**
- 5 LATE ITEMS OF URGENT BUSINESS**
- 6 PUBLIC PARTICIPATION**

A maximum of 30 minutes has been set aside for members of the public to speak on any item on the agenda. Up to 5 minutes per person is allowed. As per Standing Order 15.1 requests to speak must be made to the Chief Executive Officer at least one clear day before the meeting; however this requirement may be waived by the Chairperson. Requests should also outline the matters that will be addressed by the speaker(s).

7 MINUTES OF THE PREVIOUS MEETING

Ordinary Meeting - 6 July 2021

**MINUTES OF WAIROA DISTRICT COUNCIL
FINANCE, AUDIT & RISK COMMITTEE MEETING
HELD AT THE COUNCIL CHAMBER, WAIROA DISTRICT COUNCIL, CORONATION SQUARE, WAIROA
ON TUESDAY, 6 JULY 2021 AT 12.30PM**

PRESENT: His Worship the Mayor Craig Little, Cr Jeremy Harker, Cr Denise Eaglesome-Karekare, Mr Philip Jones, Cr Danika Goldsack

IN ATTENDANCE: **Kitea Tipuna** (Tumu Whakarae | Chief Executive), **Gary Borg** (Pouwhakarae – Pūtea/Tautāwhi Rangapū | Group Manager Finance and Corporate Support), **Simon Mutohori** (Pouwhakarae - Whakamahere me te Waeture | Group Manager Planning & Regulatory Services), **Stephen Heath** (Pouwhakarae – Hua Pūmau Hapori/Ratonga | Group Manager Community Assets and Services), **Lauren Jones** (Kaikaute Putea | Financial Accountant), **Jonny Hardie** (Kaiwhakahaere Kaupapa - Whaipainga | Project Manager – Infrastructure), **Alannah Marshall** (Governance and Economic Development Officer | Kaiurungi Mana Ārahi Whakawhanake Ōhanga)

1 KARAKIA

Karakia was given by Tumu Whakarae | Chief Executive Kitea Tipuna.

2 APOLOGIES FOR ABSENCE

None.

3 DECLARATION OF CONFLICT OF INTEREST

Chairman Cr Jeremy Harker declared his change of status as Interim Chief Executive at QRS.

4 CHAIRPERSON'S ANNOUNCEMENTS

None.

5 LATE ITEMS OF URGENT BUSINESS

LATE ITEM 8.6 CLARIFICATION OF WAIROA STAR ARTICLE 1 JULY 21

COMMITTEE RESOLUTION 2021/144

Moved: Cr Jeremy Harker

Seconded: Mr Philip Jones

That in accordance with Section 46A (7) of the Local Government Official Information and Meetings Act 1987 the item **8.6 Clarification of Wairoa Star Article 1 July 21** be considered given the item had not come to hand at the time of Agenda compilation and consideration of this matter is required now in order to respond within the timeframe allowed.

CARRIED

6 PUBLIC PARTICIPATION

None.

7 MINUTES OF THE PREVIOUS MEETING**COMMITTEE RESOLUTION 2021/145**

Moved: Cr Denise Eaglesome-Karekare

Seconded: Cr Jeremy Harker

That the minutes of the Ordinary Meeting held on 25 May 2021 be confirmed.

CARRIED

8 GENERAL ITEMS**8.1 3 WATERS STIMULUS PROJECT UPDATE****COMMITTEE RESOLUTION 2021/146**

Moved: Cr Jeremy Harker

Seconded: His Worship the Mayor Craig Little

That Committee receive the report.

CARRIED

Project Manager – Infrastructure presented his first report to this committee. He advised members that if they would like specific information, to let him know.

He spoke at length about the top five risks as detailed in the report.

The committee asked about the mitigation strategy for these risks as concerns about supply issues due to COVID-19 related delays could impact the project's completion. DIA has approved a project for stormwater as a backup option to reduce risk.

Mr Philip Jones requested location descriptions to be added to photos.

8.2 HEALTH & SAFETY UPDATE

COMMITTEE RESOLUTION 2021/147

Moved: Cr Denise Eaglesome-Karekare

Seconded: Mr Philip Jones

That Committee receive the report.

CARRIED

The Chief Executive spoke to the report in the Zero Harm Officers absence.

Key points of discussion

- Successful Covid vaccine and Flu injection rollout for WDC Staff.
- Increase incidents with contractors- mitigation plan

A point was raised about the report been presented based on incidents that have occurred when in reality, it needs to look at the report being presented in a more proactive manner rather than reactive.

Consequently the committee talked over activities they need to see to improve current operating standards to monitor accordingly.

The committee agreed on the following actions:

1. Top 5 Health and safety risks and mitigations to this.
2. Development of Strategic Health and Safety reporting and key milestone to achieving this

8.3 FINANCIAL PERFORMANCE TO 31 MAY 2021

COMMITTEE RESOLUTION 2021/148

Moved: Cr Jeremy Harker

Seconded: Mr Philip Jones

That Committee receive the report.

CARRIED

This report was spoken to as item 4 as an incorrect appendix was attached to the agenda. The monthly report to 31 May 2021 was circulated and emailed to attendees.

The report covered the period of 1 July 2020 to 31 May 2021 financial performance.

The Kaikaute Putea Financial accountant spoke to Highlights from the report that included :

- NZTA subsidy
- Explanation on variance analysis
- Projects and funding

The Committee commended the work for all involved for the funded projects as this is tangible outcomes for the community and shows Council can deliver this to a high standard.

They also explained the confidence they have as the report's contents are to a high standard and

really reassuring for the committee.

8.4 ANNUAL REPORT 20/21 TIMETABLE AND AUDIT PLAN RISK ASSESSMENT

COMMITTEE RESOLUTION 2021/149

Moved: Cr Jeremy Harker

Seconded: Mr Philip Jones

That Committee receives the timetable for the Annual Report 2020/21.

CARRIED

This report was spoken to as Item 3.

The Kaikaute Putea Financial Accountant presented the timetable. The schedule identifies key milestones and target dates for completing 20/21 Annual Report.

Particular attention was applied to previously challenging areas, including ensuring task can be completed without impact to the deadline, eg if staff unexpectedly become absent.

On the recent interim audit visit the Financial Accountant took the opportunity to speak to the audit team to provide direction on points that held up their process last time so this can be taken on board and implemented.

Compared to last year's Service Performance reports were previously a risk, a good routine is now in place with dedicated CAAS Team members to prepare this report reducing the risk.

A Project tracker and detailed task list has been set up to ensure tasks are completed ahead of deadlines.

8.5 CAPITALISATION POLICY

COMMITTEE RESOLUTION 2021/150

Moved: Cr Jeremy Harker

Seconded: Cr Danika Goldsack

That Committee receive the policy.

CARRIED

The Kaikaute Putea Financial Accountant presented the policy. The policy ensures an appropriate and consistent distinction is made between capital and operational expenditure throughout Council.

The policy was well received and a comment was made to look at adding a flow chart as an easier tool for users to follow.

8.6 LATE ITEM- CLARIFICATION OF WAIROA STAR ARTICLE 1 JULY 21

The committee spoke about their concern around reporting in the recent article that provided misinformed information, resulting in confusion within the community.

Council had rewritten the article and released it on Council's media avenues.

The committee wanted to clarify to the reporter present key points that were misinformed. They also offered reporters the opportunity to get articles reviewed by Council to avoid this in the future.

The committee also went over the workplan and made updates

The Meeting closed at 1.45 with a closing karakia by Tumu Whakarae | Chief Executive Kitea Tipuna.

The minutes of this meeting were confirmed at the Finance, Audit & Risk Committee Meeting held on 17 August 2021.

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CHAIRPERSON

8 GENERAL ITEMS

8.1 STRATEGIC RISKS

Author: Gary Borg, Pouwhakarae - Putea / Tautawhi Rangapu Group Manager Finance and Corporate Support

Authoriser: Kitea Tipuna, Tumu Whakarae Chief Executive

Appendices: 1. LTP Assumptions and Risks [↓](#)

1. PURPOSE

- 1.1 The purpose of this report is to provide Committee with a status review of the Strategic Risks identified in Council's Long-term Plan 2021-31 (LTP)

RECOMMENDATION

The Pouwhakarae - Putea / Tautawhi Rangapu Group Manager Finance and Corporate Support RECOMMENDS that Committee receive the report and confirm that, subject to significant additions identified through regular risk management, the risks contained in the LTP and attached as Appendix 1 will form the baseline for its continuing risk monitoring.

EXECUTIVE SUMMARY

2. BACKGROUND

- 2.1 Risk monitoring and reporting is an integral part of the Committee's Terms of Reference.
- 2.2 While all of Council's decisions are supported by a risk assessment, and other specific areas are routinely presented to the Committee, it is desirable for the Committee to have an holistic overview of risk management.
- 2.3 The council is developing a comprehensive corporate risk register. It is recognised that many of the risks identified and monitored within this will be operational and not require escalation in accordance with Council's Risk Management Policy.
- 2.4 Therefore, this paper seeks to establish a baseline for the strategic risks that the Committee monitors.
- 2.5 As a starting point, **Appendix 1** contains the Key Forecasting Assumptions and associated risks contained in the LTP. The status is noted for each.

3. OPTIONS

- 3.1 The options identified are:
- Receive the report and confirm support for the approach
 - Receive the report and provide alternative direction
- 3.2 The preferred option is *a) Receive the report and confirm support for the approach*, this contributes to the following community outcomes

Economic wellbeing	Social and Cultural Wellbeing	Environmental Wellbeing
1. A strong prosperous and	3. A community that values	7. A safe and secure

thriving economy 2. A safe and integrated infrastructure	and promotes its culture and heritage 4. Safe and accessible recreational facilities 5. Supportive, caring and valued communities 6. Strong district leadership and a sense of belonging	community 8. A lifetime of good health, education and well-being 9. An environment that is appreciated, protected and sustained for future generations
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4. CORPORATE CONSIDERATIONS

What is the change?

4.1 No change

Compliance with legislation and Council Policy

4.2 This report is prepared observing Council's Risk Management Policy and the key strategic risks identified in the LTP

What are the key benefits?

4.3 Initiate formal risk monitoring

What is the cost?

4.4 Nil

What is the saving?

4.5 Nil

Service delivery review

4.6 Not applicable

Māori Standing Committee

4.7 This matter pertains to risk management in general. Emerging risk with cultural impact will be within scope for the MSC

5. SIGNIFICANCE

5.1 Monitoring risk is normal practice for the Committee and of itself is low significance

6. RISK MANAGEMENT

6.1 In accordance with the Council's Risk Management Policy the inherent risks associated with this matter are:

Human	Financial	Regulatory
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Low	Low	Low
Operations	Employees	Image & Reputation
Low	Low	Low

Who has been consulted?

This is business as usual and does not require consultation.

Further Information**References (to or from other Committees)**



Ongoing

Confirmation of statutory compliance

In accordance with section 76 of the Local Government Act 2002, this report is approved as:

- a. containing sufficient information about the options and their benefits and costs, bearing in mind the significance of the decisions; and,
- b. is based on adequate knowledge about, and adequate consideration of, the views and preferences of affected and interested parties bearing in mind the significance of the decision.

Signatories

 	
Author Gary Borg	Approved by Kitea Tipuna

FORECASTING ASSUMPTIONS & RISKS

WATER REFORM

Assumptions	Council plans to deliver three waters services over the life of this LTP, however the Government's three waters reform creates a high degree of uncertainty on the future ownership and delivery of these services. The receipt of Government funding will enable improvements in water service delivery, support economic recovery from COVID-19 and progress reform in this area. Additional funding will be subject to Government decision-making and reliant on Council demonstrating progress against delivery plans and reform objectives. The Government will provide guidance on the approach to funding support.
Risk	High degree of uncertainty and potential for change in regards to financial and infrastructural planning in the three waters space.
Likelihood	High
Financial materiality	High
Reasons and effect of uncertainty	Uncertainty exists regarding the scale and impact of financial and legislative compliance resulting from the Government's 3-Waters reform and Hawkes Bay 3-Waters service delivery options. Considerable administration of 'shovel ready' and civil construction projects. Second order impacts create further uncertainty.
Status 9 August 2021	<ul style="list-style-type: none"> • Council is participating in the review and conducting community engagement sessions through August and September. • Council is participating in a Regional Collaboration Day on 16 August

INFLATION

Assumptions	<p>Council's financial information is based on costs and income adjusted for inflation. The BERL forecasts of price level changes have been used to calculate costs and income for years 2-10 of the LTP. These forecasts are based on a post-COVID-19 'mid-scenario' as the baseline, which is considered most applicable to our local area and economy. Where existing contracts contain cost fluctuation/inflation provisions these have been applied where relevant.</p> <p>Table 1: Local government cost index, BERL mid-scenario, % change on year earlier.</p> <table><tr><th colspan="4">BERL mid-scenario</th></tr><tr><th></th><th>OPEX</th><th>CAPEX</th><th>TOTAL</th></tr><tr><td>2019</td><td>3.0</td><td>2.9</td><td>3.0</td></tr><tr><td>2020</td><td>1.9</td><td>2.0</td><td>2.0</td></tr><tr><td>2021</td><td>-0.6</td><td>-0.9</td><td>-0.7</td></tr><tr><td>2022</td><td>3.6</td><td>4.0</td><td>3.7</td></tr><tr><td>2023</td><td>2.9</td><td>3.0</td><td>2.9</td></tr><tr><td>2024</td><td>2.5</td><td>2.6</td><td>2.5</td></tr><tr><td>2025</td><td>2.5</td><td>2.6</td><td>2.5</td></tr><tr><td>2026</td><td>2.5</td><td>2.7</td><td>2.6</td></tr><tr><td>2027</td><td>2.5</td><td>2.6</td><td>2.5</td></tr><tr><td>2028</td><td>2.6</td><td>2.8</td><td>2.6</td></tr><tr><td>2029</td><td>2.7</td><td>2.8</td><td>2.7</td></tr><tr><td>2030</td><td>2.7</td><td>2.9</td><td>2.7</td></tr><tr><td>2031</td><td>2.6</td><td>2.7</td><td>2.6</td></tr><tr><td>20 year average %pa</td><td>2.2</td><td>2.3</td><td>2.2</td></tr></table> <p>Table 2: Local government cost adjusters, BERL mid-scenario, % change on year earlier.</p> <table><tr><th colspan="6">BERL mid-scenario</th></tr><tr><th></th><th>Planning & Regulation</th><th>Roading</th><th>Transport</th><th>Community</th><th>Water & Environment</th></tr><tr><td>2019</td><td>3.2</td><td>2.3</td><td>2.8</td><td>2.0</td><td>3.8</td></tr><tr><td>2020</td><td>1.7</td><td>1.9</td><td>1.8</td><td>1.7</td><td>2.5</td></tr><tr><td>2021</td><td>0.5</td><td>0.8</td><td>0.7</td><td>-0.2</td><td>-3.8</td></tr><tr><td>2022</td><td>2.7</td><td>3.3</td><td>2.9</td><td>3.2</td><td>6.0</td></tr><tr><td>2023</td><td>2.5</td><td>3.1</td><td>2.6</td><td>2.7</td><td>3.5</td></tr><tr><td>2024</td><td>2.3</td><td>3.0</td><td>2.4</td><td>2.5</td><td>2.6</td></tr><tr><td>2025</td><td>2.2</td><td>2.9</td><td>2.4</td><td>2.4</td><td>2.7</td></tr><tr><td>2026</td><td>2.2</td><td>2.9</td><td>2.4</td><td>2.5</td><td>2.9</td></tr><tr><td>2027</td><td>2.2</td><td>2.9</td><td>2.4</td><td>2.4</td><td>2.8</td></tr><tr><td>2028</td><td>2.2</td><td>2.9</td><td>2.4</td><td>2.5</td><td>3.2</td></tr><tr><td>2029</td><td>2.2</td><td>2.9</td><td>2.4</td><td>2.6</td><td>3.3</td></tr><tr><td>2030</td><td>2.2</td><td>2.9</td><td>2.4</td><td>2.6</td><td>3.4</td></tr><tr><td>2031</td><td>2.2</td><td>2.9</td><td>2.4</td><td>2.4</td><td>3.1</td></tr><tr><td>20 year average %pa</td><td>2.0</td><td>2.5</td><td>2.2</td><td>2.1</td><td>2.5</td></tr></table>	BERL mid-scenario					OPEX	CAPEX	TOTAL	2019	3.0	2.9	3.0	2020	1.9	2.0	2.0	2021	-0.6	-0.9	-0.7	2022	3.6	4.0	3.7	2023	2.9	3.0	2.9	2024	2.5	2.6	2.5	2025	2.5	2.6	2.5	2026	2.5	2.7	2.6	2027	2.5	2.6	2.5	2028	2.6	2.8	2.6	2029	2.7	2.8	2.7	2030	2.7	2.9	2.7	2031	2.6	2.7	2.6	20 year average %pa	2.2	2.3	2.2	BERL mid-scenario							Planning & Regulation	Roading	Transport	Community	Water & Environment	2019	3.2	2.3	2.8	2.0	3.8	2020	1.7	1.9	1.8	1.7	2.5	2021	0.5	0.8	0.7	-0.2	-3.8	2022	2.7	3.3	2.9	3.2	6.0	2023	2.5	3.1	2.6	2.7	3.5	2024	2.3	3.0	2.4	2.5	2.6	2025	2.2	2.9	2.4	2.4	2.7	2026	2.2	2.9	2.4	2.5	2.9	2027	2.2	2.9	2.4	2.4	2.8	2028	2.2	2.9	2.4	2.5	3.2	2029	2.2	2.9	2.4	2.6	3.3	2030	2.2	2.9	2.4	2.6	3.4	2031	2.2	2.9	2.4	2.4	3.1	20 year average %pa	2.0	2.5	2.2	2.1	2.5
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Risk	Actual inflation will be significantly different from the assumed inflation.																																																																																																																																																																
Likelihood	Low in years 1-3. Medium in years 4-10.																																																																																																																																																																
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Reasons and effect of uncertainty	Uncertainty exists regarding the mid and long-term effects of COVID-19 on the district's economy and recovery, making planning more challenging. From experience, contract tender prices can vary materially from the Local Government Cost Index (LGCI) due to the remoteness of the district and the size of the contracts that the Council will seek to place. It is conceivable that demand pressures that are created from COVID-19 economic recovery stimulus packages may exacerbate this issue. Council will seek to mitigate this by partnering locally and through collaborative procurement practices																																																																																																																																																																

	within the Hawke's Bay region. Inflation is affected by external economic factors. Council's costs and income will increase by the rate of inflation unless efficient gains can be made.
Status 9 August 2021	<ul style="list-style-type: none"> Monitoring

CLIMATE CHANGE AND NATURAL DISASTER

Assumptions	Potential climate change effects are likely to impact on our infrastructure and affect Council's ability to deliver levels of service. Council's planning includes scenarios which factor in the occurrence of more frequent and intense weather events. These reach levels of significance within the period covered by Council's infrastructure strategy. Council's response to climate change helps it identify key assets at risk, recognise impacts in asset and financial modelling and prioritise funding for resilience. It will support Council to identify critical components of its networks, and prioritises renewals so that the network can continue to operate.
Risk	More frequent and intense weather events that create increased risk or damage to Council's infrastructure and activities.
Likelihood	Medium-High
Financial materiality	High
Reasons and effect of uncertainty	<p>Although Council has faced natural disaster events in the past, and coped adequately, climate change predictions are that weather events will become more frequent and intense. These may have implications on Council's infrastructure and activities. There may be increased risk to coastal roads and infrastructure from coastal erosion and inundation, increased storminess and sea-level rise. Flooding and heat are predicted to impact the roading networks in our district. Drought will likely result in water shortages, increased demand for irrigation and increased risk of fires. Council expects this may impact on the provision of safe drinking water, the disposal of wastewater and stormwater.</p> <p>The potential effect of a natural disaster on Council's financial position is dependent on the scale, duration and location of the event. Central government assistance and insurance contracts would reduce some of Council's financial risk.</p>
Status 9 August 2021	<ul style="list-style-type: none"> Upcoming input to Regional Spatial Plan

FUNDING SOURCES

Assumptions	Council's sources of funds are as per the revenue and financing policy. Council will continue to receive external funding at current levels from government agencies such as SPARC, MSD and DIA. Council will continue to apply for government funding through various channels.
Risk	Some revenue sources may be not achievable. Government agencies may reduce or eliminate funding for various programmes.
Likelihood	Low
Financial materiality	Low
Reasons and effect of uncertainty	Council has undertaken a review of its revenue and funding policy and the rationales for its funding allocations. The funding assistance rate for the land transport system from Waka Kotahi (NZTA) is confirmed for 2021-2024. Fees and charges are based on levels regularly achieved, and adjusted for specific initiatives or conditions. Council's rating system has been reviewed and

	<p>consulted upon to deliver a system that is simpler, ensures appropriate distribution and is affordable for more ratepayers. Rates are consulted upon and controlled by prudent thresholds.</p> <p>Council has received significant additional funding from the Provincial Growth Fund to assist with various large-scale projects. Council will continue to apply for such funding. As part of the Government's three waters reform programme, Council has received significant funding to support investment in the district's three waters infrastructure. This may comprise additional tranches of funding and specific agreements to key reform milestones and Council has taken a conservative view with regards to the likelihood of such funding being available in the future.</p>
Status 9 August 2021	<ul style="list-style-type: none"> • No variations reported

EXTERNAL BORROWING SOURCES

Assumptions	Council will continue to receive funding and financing from an approved banking institution.
Risk	The bank does not continue to provide finance to fund Council's activities.
Likelihood	Low
Financial materiality	Medium
Reasons and effect of uncertainty	Council believes that the likelihood of the withdrawal of bank funding is low, due to the good credit rating and relatively low risk it has as a public entity. As a member of the Local Government Funding Agency (LGFA), Council has an alternative source of debt funding. Council also has the ability to set rates at a level sufficient to cover its costs.
Status 9 August 2021	<ul style="list-style-type: none"> • Council was able to repay \$1 million in debt in 2020-21 • Monitoring the potential impact of 3 Waters entities on the money market

RATING

Assumptions	The bases for calculating and allocating rates will be appropriate throughout the life of the LTP.
Risk	Groups of ratepayers are significantly affected by changes to the rating system, rating revaluations, or changes to Council's activities.
Likelihood	High
Financial materiality	Medium
Reasons and effect of uncertainty	Council's rating system has been reviewed and consulted upon to deliver a system that is simpler, ensures appropriate distribution and is affordable for more ratepayers. Differentials have been applied to mitigate effects. When Council reviewed its rating system and revenue and financing policy, it consulted with the community on the most appropriate rating methodology. It has also undertaken a review of its revenue and funding policy and the rationales for its funding allocations. Rates are consulted upon and controlled by prudent thresholds. Property values could change significantly and only in certain areas of the district.
Status 9 August 2021	<ul style="list-style-type: none"> • 1st instalment invoices have been dispatched • General Revaluations taking place in November 2021

USEFUL LIVES OF SIGNIFICANT ASSETS

Assumptions	Council has estimated the useful lives of its significant assets, as detailed in the Statement of Accounting policies.
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Risk	Assets will not last as long as forecast and will need to be replaced before funds are available.
Likelihood	Medium
Financial materiality	Medium
Reasons and effect of uncertainty	Council has an asset management planning and upgrade programme in place. Asset capacity and condition is monitored, with replacement works being planned in accordance with standard asset management practice. Council has growing concerns about the impact climate change will have on the life-span of its infrastructural assets.
Status 9 August 2021	<ul style="list-style-type: none"> No impairments reported

CURRENCY MOVEMENTS & ASSET VALUES

Assumptions	Currency movements of exchange rates will not fluctuate significantly during the life of this LTP.
Risk	Council's costs are adversely affected by foreign exchange movements.
Likelihood	Medium
Financial materiality	Medium
Reasons and effect of uncertainty	Council does not have direct exposure to currency movement in respect of significant assets or liabilities and is not aware of any material dependencies on overseas inputs within its major contracts. However, the Wairoa economy is underpinned by a strong primary sector with a substantial export component. Parts of the community that depend on these markets to thrive may be adversely affected by exchange rate movements which could, in turn, affect the demand and perceived affordability of Council services.
Status 9 August 2021	<ul style="list-style-type: none"> Observed that this may impact price and availability of raw materials Key material inputs were purchased in advance for Te Wairoa e Whanake

CONSENT RENEWALS

Assumptions	Council basis its future projections on the expectation that consents will be renewed for its activities including wastewater, waste management, water supply and stormwater.
Risk	Approving bodies will fail to renew the consent renewals that Council requires to carry out its activities.
Likelihood	Medium
Financial materiality	High
Reasons and effect of uncertainty	Council has no reason to believe that any of the consents that it operates under will not be renewed, but are concerned at the implications of potential changes to consent conditions or compliance resulting from the three waters review. Any failure to renew the consents could significantly affect the ability of Council to provide an effective level of service. An update on the wastewater consent is specifically addressed in this LTP.
Status 9 August 2021	<ul style="list-style-type: none"> Wastewater consent renewal in progress

NEW AND REPLACEMENT ASSETS, CAPITAL WORK

Assumptions	The construction of new assets increases Council's levels of service, unless otherwise stated. The replacement of existing assets does not mean an increase in levels of service or capacity, unless stated. Programmes are completed within time and budget.
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Risk	The replacement of existing assets increases the levels of service due to technological changes or through the adoption of best practice. New assets do not meet the agreed levels of service or do not provide adequate capacity. Delays in the completion of major capital projects may delay completion of other projects.
Likelihood	Low-Medium
Financial materiality	Low-Medium
Reasons and effect of uncertainty	<p>In most cases, increased levels of service are linked with the construction of new assets. Council's asset managers have already adopted best practice techniques. For most new assets there are relatively long project planning and design phases. Where possible, new assets are designed and constructed with future levels of service and capacity in mind. An increase in private development at Mahia is likely to impact on the demand for future assets.</p> <p>Council regularly managed capital projects that are carried forward from previous periods. Projects with lower priority and that are less time sensitive may be delayed. Various disruptive technologies, including social media, software-as-a-service, artificial intelligence, e-commerce, drones and automation have implications for our operations. These can be harnessed to reduce costs and improve service delivery, however given the pace of change it is difficult to forecast exactly when and how technologies will progress, and to what end.</p>
Status 9 August 2021	<ul style="list-style-type: none"> • No issues reported; installation of back flow preventers / smart meters progressing to schedule • Separately reported

CAPITAL WORKS COSTS

Assumptions	On average, the costs of major capital works will not vary significantly from costs estimated at the concept stage and adjusted for inflation.
Risk	Some project costs are greater than the estimates, resulting in increased debt levels.
Likelihood	Medium in years 1-3. High in years 4-10.
Financial materiality	High
Reasons and effect of uncertainty	<p>Council has a high level of confidence regarding the costs of capital project in the short term but less certainty in the longer term due to possible economic fluctuations, growth patterns, consent conditions etc. The potential effects of this uncertainty on the financial statements would be difficult to estimate, but may lead to a number of projects being deferred, cancelled or rescope.</p> <p>As an example, through 2019 to 2021 an upgrade to the Mahanga water supply infrastructure was paused and subject to 2 referendums as a result of cost escalations rendering the project unaffordable.</p>
Status 9 August 2021	<ul style="list-style-type: none"> • 3 Waters Stimulus Delivery Plan has been adjusted

LAND TRANSPORT FUNDING

Assumptions	Ratepayer contributions provide 25% of the funding towards the land transport system, and the Government's subsidy is 75%.
Risk	A change to the Governments subsidy rate, and variation in criteria for inclusion in the subsidised works programme.
Likelihood	Low in years 1-3. Medium in years 4-10.
Financial materiality	Medium
Reasons and effect of uncertainty	The funding assistance rate from Waka Kotahi (NZTA) is confirmed for 2021-2024. However, NZTA funding priorities may change as a result of the Land Transport Management Act 2003.
Status 9 August 2021	<ul style="list-style-type: none"> Awaiting moderation of Low Cost / Low Risk Capital Additions plan

GENERAL POPULATION AND HOUSEHOLD CHANGE

Assumptions	The population of the district will increase moderately during the life of the LTP. The number of households will increase moderately. Growth in the district is expected to be in Mahia, with an increase in retirees to the area or those returning home.
Risk	Population change will be higher than protected, putting increased pressure on Council to provide additional infrastructure and services. Alternatively, the population could decline, increasing the residual burden on ratepayers.
Likelihood	Low
Financial materiality	Low-Medium
Reasons and effect of uncertainty	<p>Medium growth projections signal small population gains of up to 3% and high growth projections signal 8% during the life of the LTP. Wairoa is projected to account for 60% of total new (permanently occupied) household growth and Mahia approximately 15%. Growth in Mahia will likely be due to an increase in retirees to the area or those returning home. Council will seek to understand the future impacts of development on its infrastructure. This will help it better model the potential financial impacts and prioritise funding accordingly.</p> <p>Population projects are based on demographic assumptions that do not change quickly and a continuation of the annual average level of population growth in the district. Existing infrastructure and levels of service are not likely to require increased investment in the population is static. A decline in population may not reduce the cost of delivering Council's levels of service, although if it results in extended asset lives, the annual depreciation expense would be lower.</p>
Status 9 August 2021	<ul style="list-style-type: none"> Small population increase, no impact observed

AGEING POPULATION AND SINGLE PERSON HOUSEHOLD CHANGE

Assumptions	The population of the district aged 65 and over is expected to increase during the life of the LTP. The number of single-person households will also increase. Declines in the population aged 40-64 and two-parent families are expected.
Risk	There will be a decline in the affordability/ability to pay, with more people on fixed incomes and potentially lower household incomes.
Likelihood	High
Financial materiality	Medium
Reasons and effect of uncertainty	Without intervention it is inevitable that increasing costs of Council's activities will become an increasing proportion of fixed household income. Council's review of its rating system and economic development initiatives seek to alleviate this. An ageing demographic may require an adaptation of public services and infrastructure to meet the needs of an older community.
Status 9 August 2021	<ul style="list-style-type: none"> 1st instalment invoices have been dispatched

COUNCIL POLICY

Assumptions	Apart from Council's revenue and financing policy, there will be no significant changes to Council policy in this LTP.
Risk	New legislation is enacted that requires a significant policy response from Council. Election of a new Council with different objectives to the current Council.
Likelihood	Medium
Financial materiality	Low
Reasons and effect of uncertainty	Changes to Council policy to deal with new requirements are part of normal business. Any significant change would be assessed in terms of the impact on Council's financial position. Council's significance and engagement policy, and its Māori decision-making policy remain largely unchanged. The Local Government Act 2002 ensures that changes in policy follow due process, including consultation with the public.
Status 9 August 2021	<ul style="list-style-type: none"> Māori policy remains under review

GOVERNANCE

Assumptions	The structure of Council's elected representation includes a general ward and Māori wards.
Risk	Applications will be made to Council for a representation review.
Likelihood	High
Financial materiality	Low
Reasons and effect of uncertainty	The Māori Ward will remain in place for the next election in 2022. Council is required to complete a review of its governance structure in 2024.
Status 9 August 2021	<ul style="list-style-type: none"> Triennial elections in 2022

CONTRACTS

Assumptions	No significant variations in terms of price from the re-tendering of operational and maintenance contracts and renewal of service level agreements, other than those variations in this LTP.
Risk	A significant variation in price from re-tendering contracts and renewal of service level agreements.
Likelihood	Medium for years 1-3. High for years 4-10.
Financial materiality	Medium-High.
Reasons and effect of uncertainty	Council has been able to manage contracts within a narrow range of cost variation. If contract prices were to increase significantly then it would review the amount of work programmed and undertaken. Adjustment for known and projected increases in contracts have been included. For more information, refer to assumption about Inflation.
Status 9 August 2021	<ul style="list-style-type: none"> No variations observed

EXTERNAL FACTORS

Assumptions	Apart from the Government's three waters reform and RMA reforms, there will be no unexpected changes to legislation or other external factors that alter the nature of services provided by Council other than what is stated in this LTP.
Risk	There are unexpected changes that alter the services provided by Council.
Likelihood	Medium
Financial materiality	Low
Reasons and effect of uncertainty	Most changes to legislation are programmed and known about in advance. Only in extraordinary circumstances (such as public outcry over a particular incident) would unexpected changes to legislation be prompted. Central government is likely to share part of any cost associated with major legislative change.
Status 9 August 2021	<ul style="list-style-type: none"> Status quo

8.2 ANNUAL REPORT AND AUDIT UPDATE**Author:** Lauren Jones, Kaikaute Putea Financial Accountant**Authoriser:** Gary Borg, Pouwhakarae - Putea / Tautawhi Rangapu Group Manager
Finance and Corporate Support**Appendices:** 1. Annual report and audit update [↓](#)**1. PURPOSE**

- 1.1 The purpose of this report is to inform the committee of the current status of the annual report and audit plan.

RECOMMENDATION

The Kaikaute Putea Financial Accountant RECOMMENDS that Committee receive the report.

Confirmation of statutory compliance

In accordance with section 76 of the Local Government Act 2002, this report is approved as:

- a. containing sufficient information about the options and their benefits and costs, bearing in mind the significance of the decisions; and,
- b. is based on adequate knowledge about, and adequate consideration of, the views and preferences of affected and interested parties bearing in mind the significance of the decision.

Signatories

	
Author Lauren Jones	Approved by Gary Borg

Annual report and Audit update 09 August 2020

KEY DATES

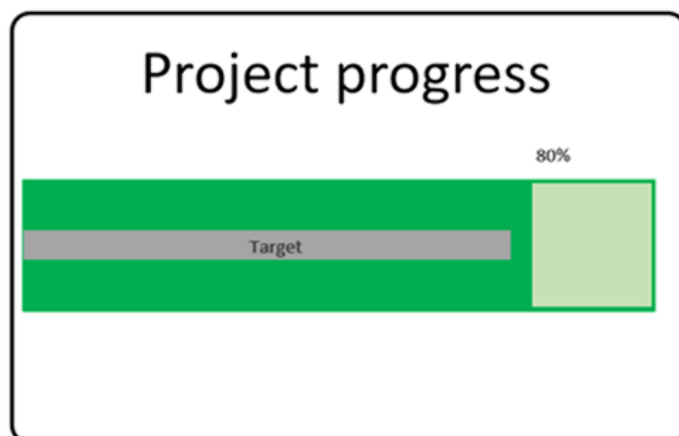
27 August	Draft accounts ready
20-24 September	Audit booked from their office for preliminary work
27 September – 9 October	Audit onsite
28 September	FAR committee review of Draft Annual Report
19 October	Adoption at ordinary Council meeting

PROGRESS OVERVIEW

1. MagiQ issues have delayed one reporting metric for the SSP (statement of service performance)– this is being attended to and will be resolved before audit is onsite.
2. Other work is progressing to plan
3. Workpapers are being prepared to pre-empt audit queries and streamline the audit process.
4. 80% of tasks have been completed against a target of 77%

Key deadlines		Progress
SSP	30-Jul	Awaiting environmental health due to MagiQ issues
Performance stories	30-Jul	
Preliminary workpapers	15-Aug	
Draft TB ready	15-Aug	
Draft annual report	22-Aug	
Audit documentation	13-Sep	
Review of draft	27-Aug	
Final report for adoption	11-Oct	
Adoption	19-Oct	
Summary report	30-Oct	
Publish	20-Nov	

Key deadline status key	
In progress	
Due in the next 7 days	
Overdue	
Complete	



KEY RISK AREAS**1. ASSETS**

- All assets capitalised, 90% of disposals and other adjustments performed (2020 this was completed in September)
- Proactive approach to both forestry valuers and infrastructure valuations. WSP has confirmed no revaluation required for the 2021 year and a report is due for issue 9 August. Neither valuers expect valuations to have moved more than 10% thereby triggering a revaluation.
- Last year's audit had queries on reconciliations between our GL and the asset ledger and the valuation workpapers. This reconciliation has been prepared (90% complete) in advance this year, using the methodology adopted by our auditors last year so that it will be clear and easy for them to follow

2. REVENUE

Revenue recognition and cutoff is always an area of audit focus. To ensure the process is smooth, and that our approach is correct, we are undertaking a review of all large contracts/grants and ensuring we have a full documentation of our basis for revenue recognition for the year against contract.

We are providing a reconciliation between debtors account (including copy invoices), GL (revenue / revenue in advance/accrued revenue) and expenses (operating/capital) as required.

This has been completed for NZTA and the Digital Hub. Small grants, PGF and DIA ongoing. This work will be completed by the end of August.

The intention is to make the audit process around this seamless, with all supporting documentation ready and available.

3. ANNUAL REPORT WRITEUP AND PUBLISHING

Historically the annual report writeup has delayed finalisation of the audit. This year we have already commenced proofreading the report, with the full draft on track to be ready for SLT and MRM review week commencing 27 August.

The auditors will review this draft prior to their audit commencing, to ensure any wording or disclosure comments are attended to and corrected / discussed in the initial audit stages.

To prevent version control issues and a time consuming publishing process, finance is preparing the full draft using the published format from last year. The publishing will be performed on the completed final draft ready to present to Council 19 October for adoption. This will mean limited or nil changes to this version and therefore less time spent checking single figure changes.

4. NEW REPORTING STANDARD

WDC has early adopted FRS 44 however our trade receivables data has not been available from MagiQ to calculate the estimated lifetime credit losses using the standard methodology. We have proactively discussed this with audit who have confirmed they are comfortable with our doubtful debt provision as a proxy. Lifetime loss data is available for rates. This proactive approach prevented bottlenecks at the time of the onsite audit.

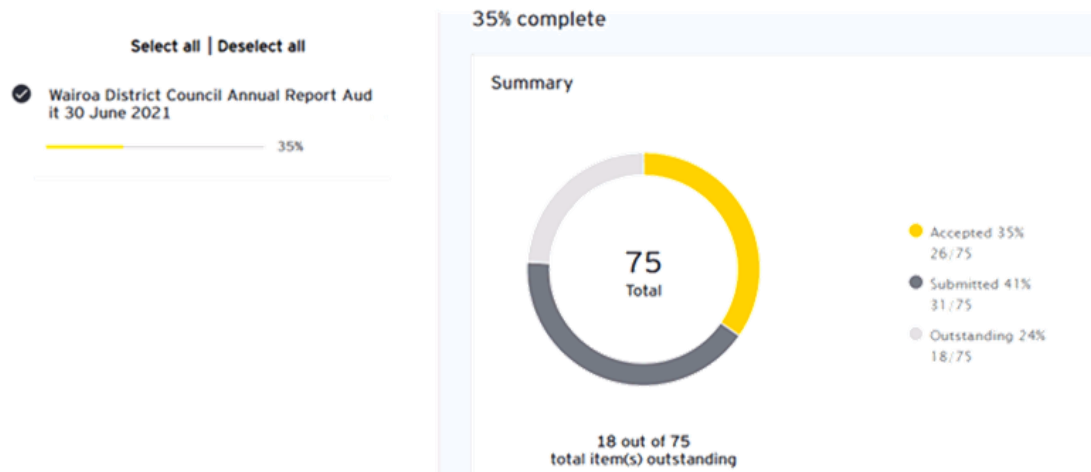
5. CLASSIFICATION OF CAPEX/OPEX

Financial accountant and AMs have documented the reasons for capital/OPEX coding, working together to clarify capitalisation considerations and ensure operating expenditure is identified and classified correctly. Detailed review around wastewater consent split to be provided to audit.

ONLINE AUDIT PORTAL

In order to ensure we are ready for the onsite audit, we requested that all audit requests be submitted to their portal early. This has meant we could cross check our workplans and upload as completed. We have submitted 75% of the required documents, with the key outstanding documents including the draft annual report, draft summary report and consolidations.

We will have submitted 100% of all documentation required before the auditors commence work on 20th September.



Annual Report Timetable 2020/21

Action	Target Completion Date	Risk (Likelihood)	Impact	Mitigation	Update
Prepare Financial Statements template and annual report template (including comparatives and disclosure wording)	23 July	Delayed sending of the workbooks. Unanticipated Incorrect Target information included Very rare	Adds work to Auditors and managers to correct, delays signoff of the Audit process	Financial statement template prepared and in use with quarterly reporting therefore turnaround quicker and more accurate, with Financial Accountant familiar with the layout and expectations.	Draft Complete
Interim Audit	22 June			Completed. 100% of requests submitted before audit was onsite, resulting in a smooth and easy audit.	Complete

Action	Target Completion Date	Risk (Likelihood)	Impact	Mitigation	Update
Regular Year-End Adjustments <ul style="list-style-type: none"> - Investment Adjustments - Debtors – Aging of Rating Debtors and Provision for Doubtful Debts - Stocks on Hand - Payroll - Grants - Landfill provision - Rates reconciliation 	23 July	Delayed completion of this work Rare Systemic challenges to production of base data Rare	Work would need to be done in August Delayed close of ledgers and completion of notes to accounts	Stock on hand requested 24/6/21 for stocktake completion on 30 June. Draft landfill provision calculations provided for review at interim audit. Last year we made detailed notes on how to prepare the workbooks to enable easy follow through.	Stocktakes completed Draft complete, meeting with Luke 13/8 to confirm all future costs before his departure
Creditors <ul style="list-style-type: none"> - Non-Contractual Creditors <ul style="list-style-type: none"> o Processed Invoices ex GL o Invoices not received or processed - Contract claims/Prepayments and accruals 	23 July	Creditor costs are not accurately recorded in the accounts Moderate Cost information incomplete Unanticipated PO's are not receipted, have wrong value or not raised Likely	Understate d expenditure and capital costs in the accounts.	Control list has been created for completeness and reconciled to contracts. PO matching has been adopted and accuracy improved throughout the organisation. Liaison with activity managers Open POs reviewed post year end Post year end payments/credit or invoices reviewed for inclusion in year end accruals	Contracts compete Open POs reviewed, along with supplier statements, confident of complete accurate cutoff
Revenue not recognised including NZTA Claim – Check for Wash-up	10 July	Income not included in accounts.	Understate d Revenue	1. Reconciliation of income to Claims.	NZTA revenue writeup

Action	Target Completion Date	Risk (Likelihood)	Impact	Mitigation	Update
DIA and PGF claims		Very rare Not all items claimed by Engineering Rare	and Receivables	2. Review of expenditure to claims. 3. Emergency spending FAR claims As it is the end of the triennium NZTA will be cut off and closed by 05 July.	complete. Other subsidy review and reconciliation underway
Ledgers closed	31 July	Timing and completeness Moderate	Delay completion of financial statements	As above. Enhanced monthly reporting schedule brings all standard tasks forward to completion by the 15 th .	Complete
Compilation of Service Performance Reports	30 July (AM and SLT review)	Late or incomplete returns. Unanticipated Supporting information not reliable/inconsistent Moderate	Additional audit work, reporting delays	SSP template prepared and in use with quarterly reporting therefore turnaround quicker and more accurate, with managers more familiar with the layout and expectations. Finance and CAAS working closely to ensure data validation and commentary in advance of audit review to pre-empt queries.	Complete except 1 outstanding Environmental Health measure (awaiting MagiQ)
Capital Adjustments (Additions/Deletions/Deprecia	23 July	Completion delayed Unanticipated	Delays finalisation of	Year to 30 April for infrastructure	Capitalisation complete.

Action	Target Completion Date	Risk (Likelihood)	Impact	Mitigation	Update
tion & Valuation allocations) and Accruals		<p>Additions/disposals not recognised Moderate</p> <p>Operating expenditure incorrectly capitalised Moderate</p>	<p>Depreciation, Reserve Movements and reporting</p> <p>Asset values and depreciation misstated</p> <p>Asset values and depreciation misstated, operating expenditure and overall profit misstated</p>	<p>review was completed mid June.</p> <p>Non-financial asset capitalisation to 30 April to be completed by 30 June.</p> <p>Financial accountant and AMs working together to clarify capitalisation considerations and ensure operating expenditure is identified and classified correctly.</p> <p>Funding Impact Statement templates to be prepared in advance of final capitalisations.</p>	<p>Awaiting WSP data for roading disposals.</p> <p>Valuations reviewed, no revaluation required.</p> <p>Risk areas for classification identified, AM comments recorded.</p>
Overhead Allocations, Reserve Interest and Special Reserve funds	5 August	<p>Complete information not available in timely fashion. Moderate</p>	<p>Delayed reporting, additional audit work</p>	<p>Dependent on above milestones, however much of the required information is now routinely prepared.</p>	OH complete. Russell working on reserve funds.
Notes, Funding Impact Statements, Financial Prudence Benchmarks	5 August				Complete, prudence drafts setup for final TB figures
Performance stories, joint statement	23 July (AM) followed by review 31 July (SLT)				Complete
Full annual report draft completed	22 August				On track

Action	Target Completion Date	Risk (Likelihood)	Impact	Mitigation	Update
Draft annual report - SLT review	27 August				On track
Draft summary report completed	13 September				On track
Audit	20 September – 08 October				On track
Presentation of Council only draft to Finance Audit & Risk Committee along with audit update	28 September				On track
Consolidation of CCO financial statements	15 August 15 September	QRS unable to pass info until audit is finalised Moderate	Delays completion of the accounts	Consolidation workbook and entry into the accounts template workbook to be setup in July, ready for data entry which will self populate to ensure a fast turnaround once data received.	On track, liaison with QRS to have their TB early September
Audit report on Control Findings, Draft opinion and Representation Letter	11 October	Moderate			On track
Report finalisation and Audit Opinion	11 October	Moderate		Workplans have been brought forward and all documentation will be available to audit before they commence on 20 th September. Areas of scrutiny have been discussed with audit and the Financial Accountant has requested examples of documentation and testing	On track

Action	Target Completion Date	Risk (Likelihood)	Impact	Mitigation	Update
				<p>processes so that these can be ready and complete for fieldwork.</p> <p>Annual report will be reviewed in July/August once rolled so any wording or disclosures can be updated and audit fieldwork will focus on the numbers.</p>	
Presentation of audited reports to Council for adoption	19 October	Moderate	Breach of statutory deadline for adoption of the report, would need to schedule an extraordinary meeting.	Ordinary Council Meeting scheduled for 19 October, agenda closes 11 October.	On track

8.3 LAPP INSURANCE

Author: Karen Akuhata, Kaiwhakahaere Whaipainga Utilities Manager

Authoriser: Gary Borg, Pouwhakarae - Putea / Tautawhi Rangapu Group Manager
Finance and Corporate Support

Appendices: 1. Polyethylene pipeline performance against earthquake [↓](#)

1. PURPOSE

- 1.1 The purpose of this report is to provide Committee with a status review of the LAPP insurance fund.

RECOMMENDATION

The Kaiwhakahaere Whaipainga Utilities Manager RECOMMENDS that Committee receive the report and choose option B Exclude Polyethylene (PE) pipes from the Local Authority Protection Programme Disaster Fund.

2. BACKGROUND

- 2.1 Council undertakes annual Local Authority Protection Programme Disaster Fund (LAPP) insurance renewals.
- 2.2 Historically this has been a transactional exercise, the Utilities Manager has reviewed insurance requirements and would like to take a more strategic approach.
- 2.3 According to the HBRC hazards portal the Wairoa area is subject to earthquakes, tsunami, flooding, and landslides.
- 2.4 The major impact from these hazards will be to above ground assets i.e. water treatment plants, wastewater pump stations and wastewater treatment plants. These assets are covered under the material damage fund.
- 2.5 To date, Council has had cause to claim through LAPP for this infrastructure group.
- 2.6 Above ground assets are covered under a separate insurance schedule (AON Material Damage). It is prudent to increase the level of cover for above ground assets, as these are believed to be at greater risk of damage. As such, the coverage through the LAPP can be reduced, the savings from this being used to provide a greater level of cover under the AON Material damage schedule for above ground assets.
- 2.7 Due to the 2 months' notice period that LAPP allows its members, declarations must be finalised before September 2021.
- 2.8 For material damage cover there is scope to seek indicative pricing from the market before placement.

3. DISCUSSION

3.1 Status Quo

- 3.1.1. The existing insurance schedule can be retained as is and the full value of underground assets will be declared on the LAPP renewal.

3.2 Option B – Exclude Polyethylene (PE) pipes.

- 3.2.1. Justification - In an earthquake PE pipe will maintain functionality, this was proven in Christchurch and also the results of a study on the performance of PE pipes in the Japan earthquakes as demonstrated in Appendix 1 - Polyethylene pipeline performance against earthquake.
- 3.2.2. Risk - Not all seismic events are the same, depending on the nature of an earthquake there is a remote possibility that these pipes could fail.
- 3.2.3. Current insured replacement costs – PE has a current replacement cost of \$4,873,378
- 3.2.4. This option provides the best balance of cover across the LAPP and AON material damage fund.

3.3 Option C – Exclude Polyvinyl chloride pipe (PVC) and (PE) pipes.

- 3.3.1. Justification – PE has proven performance in seismic events, PVC also performs well during seismic events due to the rubber joints between each pipe length which provides better flexibility.
- 3.3.2. Risk - Not all seismic events are the same, depending on the nature of an earthquake these pipes could fail.
- 3.3.3. Current insured replacement costs – PE and PVC have a current replacement cost of \$15,721,590

3.4 Option D – Exclude LTP works years 1-3

- 3.4.1. The 2021-24 Long Term Plan includes pipe renewal works to the value of \$12,000,000. For this option, the existing underground assets due to replaced would be excluded from the LAPP insurance schedule. On completion of the renewal works, these assets will be added to the insurance schedule.
- 3.4.2. Justification – These assets are due for replacement within the next 3 years.
- 3.4.3. Risk – We have an emergency event which impacts these assets and cause loss of service.
- 3.4.4. Current insured replacement costs – \$12,000,000

4. OPTIONS

4.1 The options identified are:

- a. Status Quo
- b. Exclude Polyethylene (PE) pipes
- c. Exclude Polyvinyl chloride pipe (PVC) and (PE) pipes.
- d. Exclude LTP years 1-3

4.2 The preferred option is Option B – exclude Polyethylene (PE) pipes, this contributes to the following community outcomes

Economic wellbeing	Social and Cultural Wellbeing	Environmental Wellbeing
2. A safe and integrated infrastructure		9. An environment that is appreciated, protected and sustained for future

		generations
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5. CORPORATE CONSIDERATIONS

What is the change?

- 5.1 Revisions to two of council's insurance schedules for three water infrastructure.

Compliance with legislation and Council Policy

- 5.2 Revised expenditure will align with budgets as set in the Long-Term Plan, see 5.6 below.

What are the key benefits?

- 5.3 Increased resilience in the event of damage to above ground infrastructure, as insurance schedule will be appropriately matched to level of risk and estimated replacement costs.

What is the cost?

- 5.4 In 2020-21 nett LAPP contribution was \$47,352.28.
- 5.5 Following the 2020 infrastructure asset revaluations Council's declarable value increased by 42%. In 2020 LAPP contribution: asset value equated to approximately \$1:\$1,000, which would mean the contribution for this new valuation would be approximately \$67,240 at 2020 prices.
- 5.6 A material damage policy the covers a broader range of risks with greater likelihood of claim; so the ratio is closer to \$1 premium: \$300 asset value.
- 5.7 The increase in valuations was identified in formulating the budgets for the Long-term Plan 2021-31, and year 1 of this includes sufficient capacity to accommodate a 10% increase in LAPP contribution. However, there remains considerable volatility in the insurance market and the range of increases in premiums generally could be up to 20%.
- 5.8 Following two years of significant increases there remains a high degree of uncertainty as to when the market might settle. Total insurance costs for the year to 30 June 2021 were \$322,924. The budget for 2021-22 is \$51,712 more than this, allowing for the known increases to asset valuations and anticipated increases in the liability market, which continues to harden. Based on information currently available approximately \$40,000 of this will already be consumed under a status quo option.

What is the saving?

- 5.9 Based on current estimates a significant increase across all insurances may exceed Council's budget for 2021-22.
- 5.10 Under the preferred option, approximately \$5,000 of cover capacity could be allocated to areas considered to be at greater risk, equating to approximately \$1.5 million of asset value on a material damage policy.
- 5.11 This could cover, for example, improvements to the Opoutama treatment plant currently in progress.

Māori Standing Committee

5.12 This matter has not been referred to the committee at this stage as there are no cultural implications.

6. SIGNIFICANCE

6.1 This matter is not deemed to be significant.

7. RISK MANAGEMENT

7.1 In accordance with the Council's Risk Management Policy the inherent risks associated with this matter are:

Human	Financial	Regulatory
Low	High	Low
Operations	Employees	Image & Reputation
Medium	Low	Medium

Who has been consulted?

No consultation has been undertaken at this stage.

Confirmation of statutory compliance

In accordance with section 76 of the Local Government Act 2002, this report is approved as:

- containing sufficient information about the options and their benefits and costs, bearing in mind the significance of the decisions; and,
- is based on adequate knowledge about, and adequate consideration of, the views and preferences of affected and interested parties bearing in mind the significance of the decision.

Signatories

	
Author Karen Akuhata	Approved by Gary Borg

Proceedings of the 19th Plastic Pipes Conference
PPXIX
September 24-26, 2018, Las Vegas, Nevada

POLYETHYLENE PIPELINE PERFORMANCE AGAINST EARTHQUAKE

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Keywords: Polyethylene, earthquake, monolithic pipeline, flexibility

Abstract

In Japan, polyethylene (PE) pipe have been used for a long time, but its usage is limited for water service (low density PE / PE 50) and gas service (medium density PE / PE 80). However, after Hyogoken Nanbu Earthquake in 1995, it started to sell PE pipes for water distribution applications, because no damage on PE pipes at the earthquake was highly evaluated. In addition, long-term durability was also evaluated, and 31,700 km PE pipes for water distribution have been installed until 2015.

The main futures of PE pipe are two points, 1) pipes and fittings using a high-performance polyethylene material "PE 100", 2) pipes and fittings are formed by an integral structural by electro-fusion (EF) joints.

The "PE100" material developed in the late 1980s has many advantages for underground pressure pipeline, e.g. flexibility, impact resistance, anti-crack propagation performance and long-term durability. With respect to flexibility, in particular, the tensile yield strain is 8% or more, which is much larger than that of a metal material, and almost no deterioration in strength is caused by tension and compression until yield. In addition, both pipes and fittings can be provided of the same polyethylene material. We think that the characteristics of monolithic pipeline and the flexibility can absorb the ground distortion due to the earthquake. We have verified the characteristics of PE pipeline from the viewpoint of seismic performance. 1) Basic characteristics (tensile, compression and repeated elongation), 2) Real scale simulated test, 3) Evaluating pipeline after actual earthquake. We measured strain distribution of pipe deformation by actual scale experiment simulating ground crack and unequal settlement. We selected hydrostatic pressure performance for the evaluating pipe and fittings through the real earthquake. As the result, we found that it has high earthquake resistance performance.

Also, we were investigating PE pipeline damages after actual earthquakes, e.g. 2007 Niigata Chuetsu-oki Earthquake, 2011 the Great East Japan Great Earthquake, 2016 Kumamoto earthquake. There is no damage by ground deformation, seismic motions and liquefaction, except for extreme cases like tsunami and ground collapse.

From the above, we can confirm that polyethylene pipe has high earthquake resistance. Furthermore, it has a superiority of long life and economic efficiency.

1. Introduction

It has been reported that there was no damage to gas polyethylene (PE) pipelines and water service PE pipelines during major earthquakes - including the 1995 Hyogoken Nanbu Earthquake. Also, PE pipe has been examined as JWWA (Japan Water Works Association) standard regarding water distribution pipeline. However, since its material characteristics are different from those of gas PE and water service PE pipes, we have conducted several experiments to evaluate the earthquake resistance of the PE pipeline. First, the stress-strain characteristics of PE pipe were obtained by axial stretch and compression experiments for short pipe segments.

Next, full-scale experiments simulating fissure and uneven ground settlement along the pipeline's axis were carried out to obtain pipeline deformation and strain distribution.

Furthermore, evaluating pipeline after actual earthquake

In this study, the earthquake resistance of PE pipeline for water distribution was attempted through both experiments and investigations.

2. Material property of Polyethylene

Figure 1. shows the outline of the longitudinal stretch experiment.

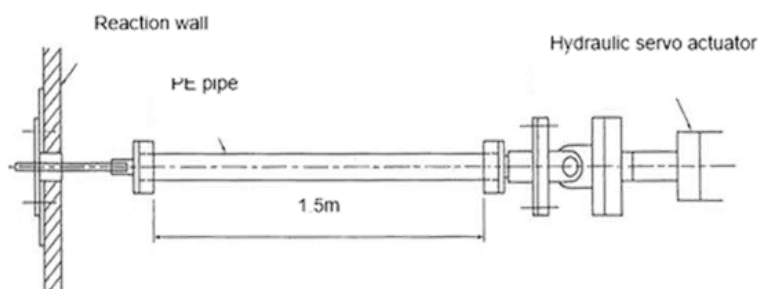


Figure1. Outline of the longitudinal stretch experiment

One end of PE pipe segment of OD90mm (SDR11) and a 1.5m pipe length was connected to reaction wall and the other end was connected to hydraulic servo actuator. By pulling the end of the pipe segment at a constant velocity, a longitudinal stretch was placed upon it.

And in the similar way to the stretch experiment, a longitudinal compression experiment was carried out to obtain the bucking behavior of the PE pipe. The nominal diameter of the pipe segment was OD180mm, SDR11 and its length was 50cm.

Both of tensile yield strain and compressive yield strain were about 8%.

In the Japan Water Work Association Design Code, it is mentioned that the tensile ground strain in perpendicular direction to normal line of the abutment may be set as 1.2% to 2%.

Therefore it can be considered that PE pipe has a sufficient ground strain absorbing capacity.

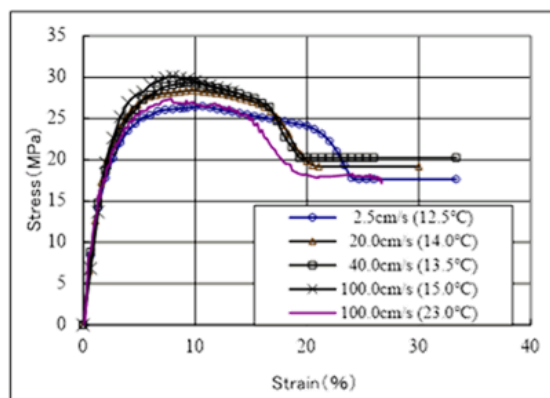


Figure 2. Tensile stress-strain curve

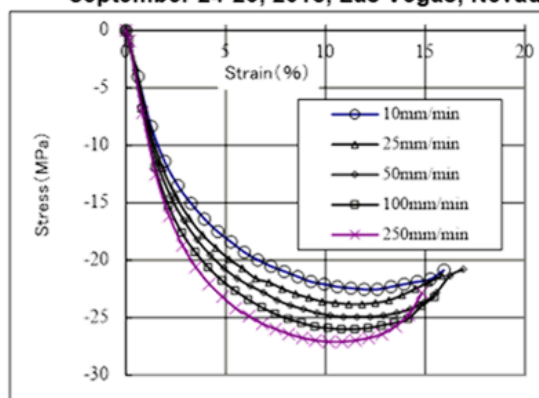


Figure 3. Compressive stress-strain curve

3. Polyethylene pipeline performance against earthquake

3.1 Seismic calculation

PE pipeline performance against earthquake is evaluated by comparing the allowable strain and sum of strain by seismic motion and stationary load.

Figure 4. shows the outline of the ground model and pipeline location.

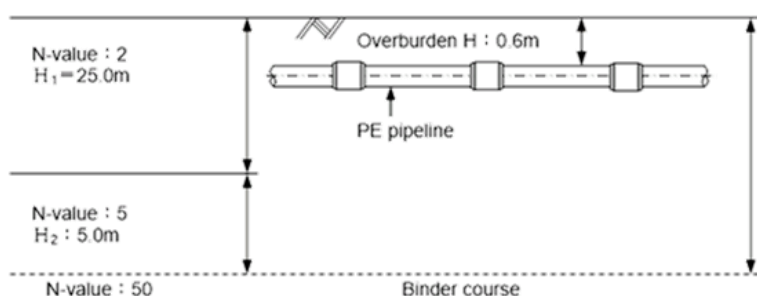


Figure 4. Outline of the ground model and pipeline location

Ground distortion which is calculated by the seismic deformation method and is not decided by pipe material but by ground conditions, are 0.060% to level-1 earthquake motion and 0.502% to level-2 earthquake motion.

Strain of PE pipeline is calculated with hard condition which is slip reduction factor = 1.0 (there is no slip between ground and pipeline).

And in view of poor ground, it is multiplied by $\eta = 2$ (Non-uniformity coefficient of ground)

Following above calculation, the strain by the level-2 earthquake motion is 1.01% and strain by stationary load is 0.62%, sum of them is 1.63%.

In the Japan Water Work Association Design Code, It is mentioned that the allowable strain is 3.0%, so strain of seismic calculation is acceptable.

3.2 Seismic test (Repetitive expansion and contraction test)

Figure 5. shows the procedure of repetitive expansion and contraction test. OD180mm, SDR11($t=11.4\text{mm}$), $L=250\text{mm}$)

Figure 6. shows the result of the test which the cycles to failure after repetitive expansion and contraction with varying strain.²⁾

In the Japan Gas Association Design Code, It is mentioned that the equivalent to the number of repetitions to level-2 earthquake motion is as 5.6 cycles/Average(12cycle/Maximum).

(Include 2011 The Great East Japan Earthquake)

It is confirmed that more than 600 cycles to failure have 50 times safety margin to maximum specified equivalent to the number of repetitions / 12 cycles.

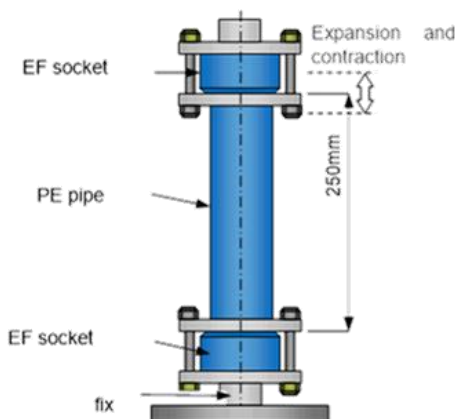


Figure 5. Repetitive expansion and contraction test

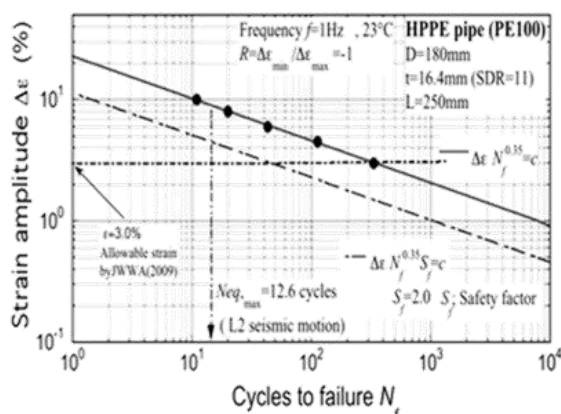


Figure 6. Cycle of failure –strain curve

4. Real scale simulated test

4.1 Fissure Experiment

Figure 7. shows an outline of the fissure experiment.

A model pipeline with a 180mm nominal diameter was buried in a 50m-length of test enclosure. By separating the enclosure at the central portion using hydraulic jacks, one installed on each side, up to 50cm of relative movement was produced between the two 25m-length enclosures to simulate large fissure occurring during an earthquake. Then the pipeline strain distribution related to the fissure width was measured.

Figure 8. shows longitudinal strain.

As seen in this figure, there are little jumps at the joints/ports due to higher ground resistant force on the electro-fusion(EF)sockets. However, the maximum strain was about 3.2%, which is smaller than the yield strain and no pipe breakage or cross-sectional shrinking were found at the central portion of the test enclosure.

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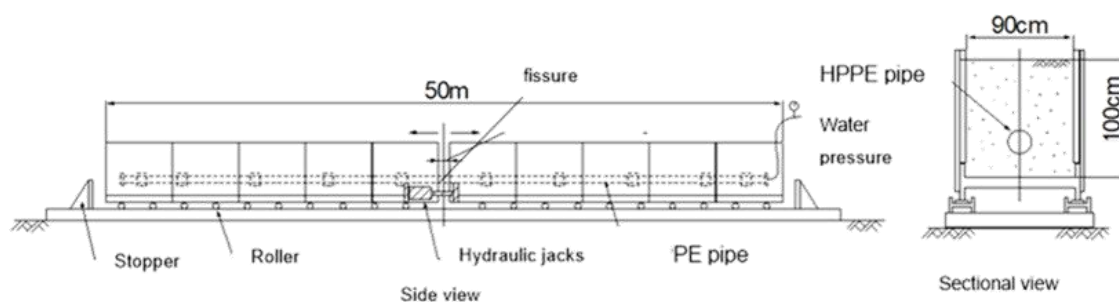


Figure7. Outline of fissure experiment

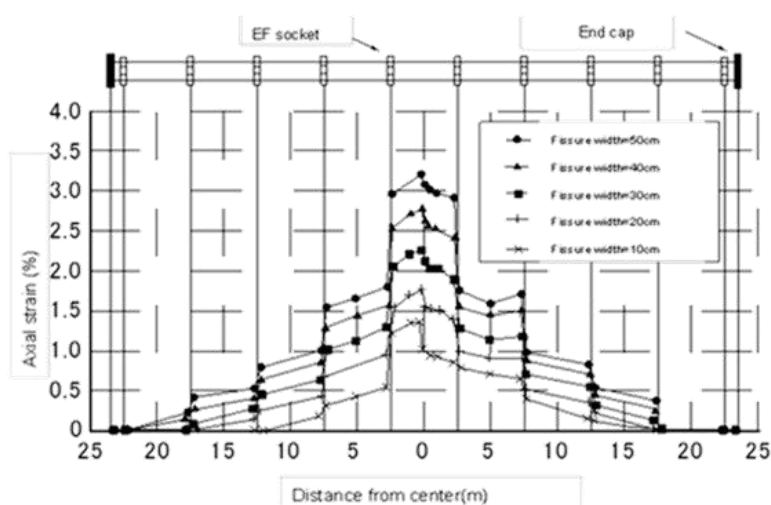


Figure8. Longitudinal strain distribution

4.2 Ground Settlement Experiment

Figure9. shows the outline of ground settlement experiment.

A model pipeline of OD125mm was buried the test pit with 8m length and 2m width. By lowering the table on one side, uneven ground settlement (jumping) was produced. Ground settlement speed is 2cm/min. And max settlement is 50cm.

Figure10. shows the distribution of longitudinal pipe strain on the bottom surface of the pipe which was greater than that on the upper surface. The maximum strain appeared 1m from pipe center on the settlement side. However, the strain value was about 3% (this was less than yield strain), there was only minute deformation of PE pipeline and no local bending or leakage were found.

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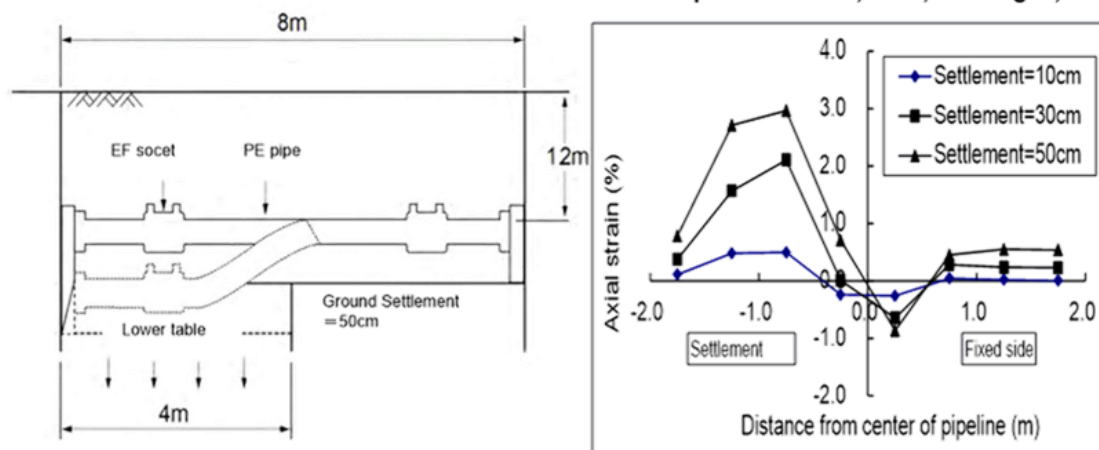


Figure 9. Outline of settlement experiment Figure 10. Longitudinal strain distribution

4.3 Hydrostatic strength of strained pipe

To evaluate long term hydrostatic strength of strained pipe by earth quake, we did hydrostatic strength (creep) test with longitudinal strained pipe.

In the test, PE pipe (OD=90mm SDR11) was pulled to apply a strain of 2.5% to 10% in advance, then the creep test (under water at 20 ° C.) prescribed by ISO9080.

Figure 11. shows the fabrication method of strained pipe.

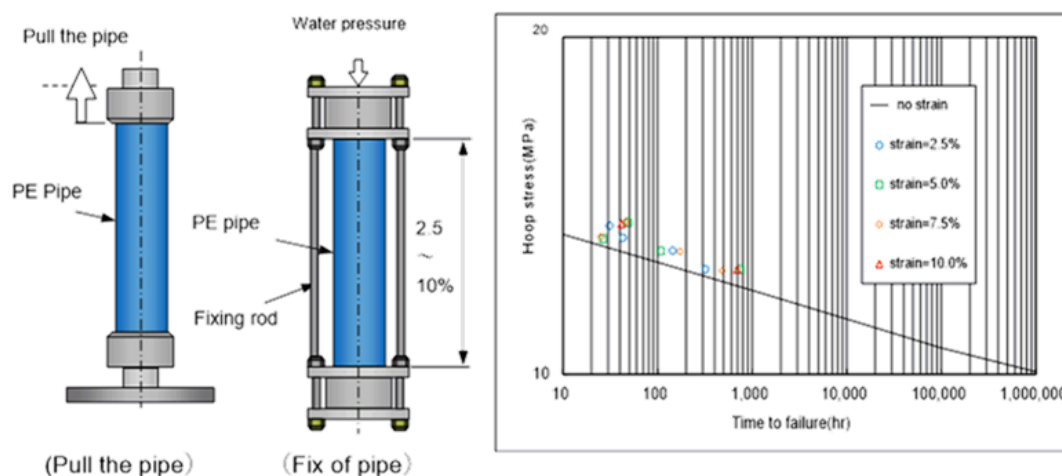


Figure 11. Fabrication method of strained pipe Figure 12. Result of creep test

Figure 12. shows the result of the creep test.

Performance of the strained pipe was better than unstrained pipe's one, therefore the PE pipe strained by ground displacement has same strength as new one.

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5. Investigation of damaged by earthquake

In Japan, Polyethylene Piping System Integrated Technology and Engineering Center (POLITEC) have investigated the damage of the PE pipeline by the earthquake.

Table 1. shows the investigated of damage by earthquake.
There were no damage by seismic motion.

Table 1. Investigation of damage by earthquake

Name of earthquake	Magnitude	Total length of PE	Damage
2003 Miyagiken Hokubu Earthquake	6.4	10km	None
2003 Tokachi-oki Earthquake	8.0	2.6km	None
2004 Mid Niigata Prefecture Earthquake	6.8	11.4km	None
2004 Noto Hanto Earthquake	6.9	2km	None
2007 Niigataken Chuetsu-oki Earthquake	6.8	13km	None
2008 Iwate-Miyagi Nairiku Earthquake	7.2	47.4km	None
2011 The Great East Japan Earthquake	9.0	996km	None
2016 Kumamoto Earthquake	7.3	147.7km	None

※Investigated by Polyethylene Piping System Integrated Technology & Engineering Center (POLITEC : Japan)

Furthermore, there were no damage by the ground deformation and the liquefaction. But 'tsunami' of 2011 The Great East Japan Earthquake broke the seawall (levee) and some of PE pipeline at Shinchi -machi and Minamisouma city in Fukushima prefecture, other.

Picture 1. and 2. show the PE pipeline where the seawall broken in Shinchi-machi.



Pic1. Damage example (1)



Pic2. Damage example (2)

However, where the seawall has not been destroyed by the tsunami, PE pipeline has been scouring was not destroyed.

Picture 3. and 4. show the PE pipeline that not damaged by tsunami.

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Pic3. PE pipeline example (1)



Pic4. PE pipeline example (2)

In order to investigate the HPPE pipe scoured by tsunami, took out the PE Pipe (Pic3.) used in Minamisouma city and evaluated them.

The PE pipe had been used from 1999 to 2011 The great East Japan Earthquake and suffered seismic motion by earthquake and deformation by tsunami. Furthermore, it was left at the site for more than half a year, it was also affected by UV.

Table2. shows the test result.

Table2. Test result

No.	Characteristic	Requirement	Result	standard
1	Elongation at break	$\geq 350\%$	613%	ISO 4427-2
2	Yield stress	$\geq 20\text{MPa}$	28MPa	JWWA K 144 ³⁾
3	Hydrostatic strength at 20°C	No failure 12.4MPa 100h	No failure	ISO 4427-2
4	Hydrostatic strength at 80°C	No failure 5.4MPa 165h	No failure	ISO 4427-2
5	Destroying water pressure	$\geq 4.0\text{MPa}$	5.5MPa	JWWA K 144

It was confirmed that the performance of PE pipe which has been scouring by tsunami is same level as them of new pipe.

6. Conclusions

1. The yield strain of the PE pipe for both longitudinal tensile and compressive was about 8% and, until reaching the yield point, the pipe evenly. In the JWWA Design Code, it is mentioned that the tensile ground strain in perpendicular direction to the normal line of the abutment may be set as 1.2 to 2%. Therefore, PE pipe can be considered to have a sufficient ground strain absorbing capacity.

2. Two type of full-scale experiments simulating a 50cm fissure and a 50cm of uneven ground settlement were conducted. The maximum pipe strain obtained was almost 3%

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for both cases, so the PE pipeline can be considered to perform adequately against large ground deformation.

3. Evaluating pipeline after actual earthquake. We measured strain distribution of pipe deformation by actual scale experiment simulating ground crack and unequal settlement. We selected hydrostatic pressure performance for the evaluating pipe and fittings through the real earthquake. As the result, we found that it has high earthquake resistance performance.

Also, we were investigating PE pipeline damages after actual earthquakes, e.g. 2007 Niigata Chuetsu-oki Earthquake, 2011 the Great East Japan Great Earthquake, 2016 Kumamoto earthquake. There is no damage by ground deformation, seismic motions and liquefaction, except for extreme cases like tsunami and ground collapse.

From the above, we can confirm that polyethylene pipe has high earthquake resistance. Furthermore, it has a superiority of long life and economic efficiency.

Acknowledgments

I would like to offer my special thanks to professor Takashi Kuriyama (Yamagata University).

References

- 1) Japan Waterworks Association (JWWA), Investigation Report of the Higher performance polyethylene pipe and fitting for water supply, 1998
- 2) Seismic Performance Evaluation of Polyethylene Pipe for Water Distribution , 2018
Yuichi Shiohama , Hideki Omuro ,Takashi Kuriyama , Joji Ejiri , Michiyo Soejima
- 3) Japan Water Works Association (JWWA) Standard JWWA K 144 Higher performance polyethylene (PE) pipes for water supply

8.4 HEALTH & SAFETY UPDATE

Author: Donna Moorcock, Kaiurungi Pūmanawa Tangata Human Resources Officer

Authoriser: Kitea Tipuna, Tumu Whakarae Chief Executive

Appendices: 1. Health & Safety August 2021 [↓](#)

1. PURPOSE

- 1.1 This report provides information for Committee on Council's health, safety and wellbeing matters. No decisions are required by Committee at this time.

RECOMMENDATION

The Kaiurungi Pūmanawa Tangata Human Resources Officer RECOMMENDS that Committee receive the report.

2. BACKGROUND

- 2.1 Regular reporting of health, safety and wellbeing compliance ensures that Wairoa District Council recognises its moral and legal responsibility to provide a safe and healthy work environment for its workers (employees, contractors, and volunteers). This commitment extends to ensuring its operations do not place the local community at risk of injury, illness, or property damage.
- 2.2 Consideration of this matter contributes to Council's vision of 'Desirable Lifestyle, Thriving Economy, Treasured Environments and Connected Communities', it also contributes to the following community outcomes:
- Cultural Wellbeing – valued and cherished community
 - Social Wellbeing – safe, supported and well-led community
 - Economic Wellbeing – strong and prosperous economy
 - Environmental Wellbeing – protected and healthy environment

3. CURRENT SITUATION

3.1 Future Focus: as per the CouncilMARK Report, the Health, Safety and Wellbeing portfolio will take a more strategic view. This will be demonstrated through the development of a Health, Safety and Wellbeing Strategy and work programme. This will be verbally discussed at the meeting and officers would be keen to receive feedback and guidance from the Committee.

3.2 Hazard Identification/Register/Accident or Near Miss Reports: One incident has been reported for the period since the last report to this Committee.

A staff member was collecting a wandering dog and was nipped on their right hand, catching skin causing 3 superficial wounds. First aid was administered on site.

3.3 Staff Training

First Aid Training for staff certificate renewals will begin in September and is to be provided by Fire and Rescue Napier. New staff will be offered opportunity to do the full course.

We are currently assessing options to upskill committee members and will create a training plan to support this.

3.4 Health and Safety Committee.

The committee was scheduled to meet on 4 August 2021 but was unable to due to a lack of quorum. This meeting is to be rescheduled.

3.5 Safety Audits Summary

Safety inspections on the Sewage Pump Station fencing and the playground at Alexander Park are ongoing.



Further Information

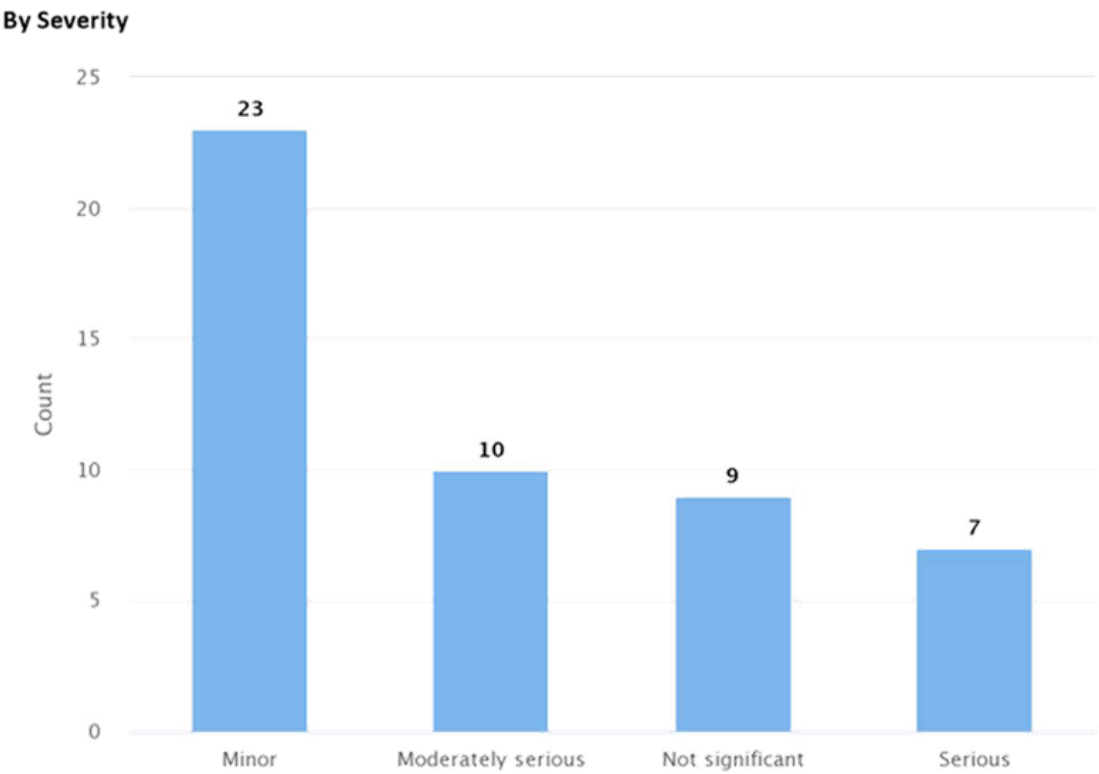
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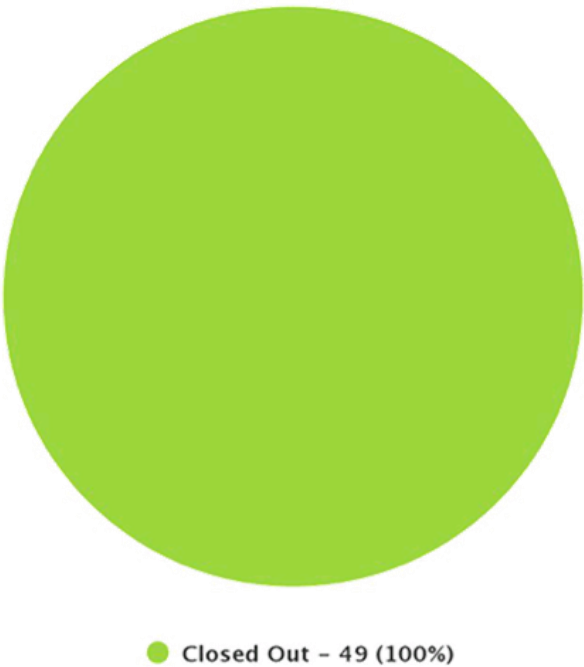
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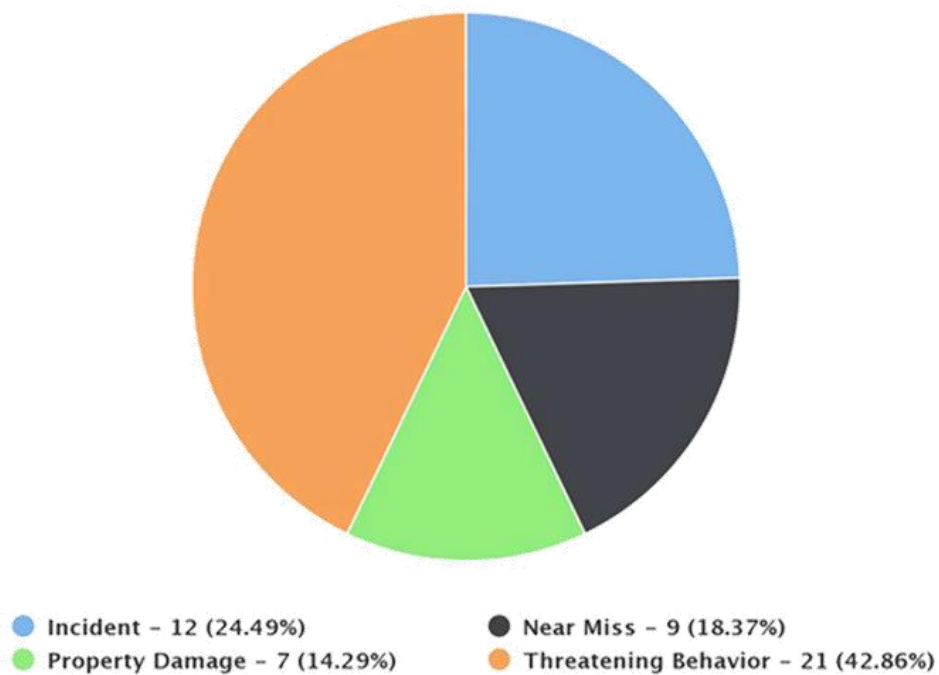
	
Author Donna Moorcock	Approved by Kitea Tipuna



Status of Events



Type of Events



Events Reported over time

