MEETING
– AGENDA –
Ngā Take

PERFORMANCE AND MONITORING

Komiti Whakahaere

PM21-1
Tuesday, 2 February 2021
Council Chambers
Barkes Corner, Tauranga
9.30am

Western Bay of Plenty District Council

Performance and Monitoring Committee

Membership

Chairperson	Cr Don Thwaites
Deputy Chairperson	Cr Murray Grainger
Members	Mayor Garry Webber Cr Grant Dally Cr Mark Dean Cr James Denyer Cr Monique Gray Cr Anne Henry Cr Christina Humphreys Cr Kevin Marsh Cr Margaret Murray-Benge Deputy Mayor John Scrimgeour
Quorum	6
Frequency	Six weekly

Role:

- To monitor and review the progress of the Council's activities, projects and services.

Scope:

- To monitor the operational performance of Council's activities and services against approved levels of service.
- To monitor the effectiveness of Council, community and agency service agreements / contracts.
- To monitor the implementation of Council's strategies, plans, policies and projects as contained in the Long-Term Plan or Annual Plan.
- To monitor Community Service Contract performance, set service delivery requirements and receive annual reports from service delivery contractors.
- To review and monitor agreements between Tauranga City Council and Western Bay of Plenty District Council and recommend to the respective Councils any changes to agreements, as appropriate.
- To monitor performance against the Priority One approved contract.
- To monitor performance of Council Controlled Organisations (CCO's) against their Statement of Intent, including Tourism Bay of Plenty's Statement of Intent and make recommendations to Council on matters relating to CCO's.
- To monitor the on-going effectiveness of implemented joint projects, plans, strategies and policies with Tauranga City Council.
- To monitor performance against any Council approved joint contracts with Tauranga City Council and/or other entities.
- To monitor performance and outcomes relating to:
  - seal extensions and unsealed road maintenance
  - community halls and facilities.
- To report to Council financial outcomes and recommend any changes or variations to allocated budgets.

Power to Act:

- Subject to agreed budgets and approved levels of service, to make decisions to enable and enhance service delivery performance.

Power to Recommend:

- To make recommendations to Council and/or any Committee as it deems appropriate.

Power to sub-delegate:

The Committee may delegate any of its functions, duties or powers to a subcommittee, working group or other subordinate decision-making body, subject to the restrictions on its delegations and provided that any sub-delegation includes a statement of purpose and specification of task.

Notice is hereby given that an Performance and Monitoring Meeting will be held in the Council Chambers, Barkes Corner, Tauranga on:
Tuesday, 2 February 2021 at 9.30am

Order Of Business

1 PRESENT

2 IN ATTENDANCE

3 APOLOGIES

4 CONSIDERATION OF LATE ITEMS

5 DECLARATIONS OF INTEREST

Members are reminded of the need to be vigilant and to stand aside from decision making when a conflict arises between their role as an elected representative and any private or other external interest that they may have.

6 PUBLIC EXCLUDED ITEMS

7 PUBLIC FORUM

A period of up to 30 minutes is set aside for a public forum. Members of the public may attend to address the Board for up to five minutes on items that fall within the delegations of the Board provided the matters are not subject to legal proceedings, or to a process providing for the hearing of submissions. Speakers may be questioned through the Chairperson by members, but questions must be confined to obtaining information or clarification on matters raised by the speaker. The Chairperson has discretion in regard to time extensions.

Such presentations do not form part of the formal business of the meeting, a brief record will be kept of matters raised during any public forum section of the meeting with matters for action to be referred through the customer contact centre request system, while those requiring further investigation will be referred to the Chief Executive.

8 PRESENTATIONS

9 REPORTS

9.1 GROUP MANAGER FINANCE AND TECHNOLOGY SERVICES REPORT

File Number: **A3968098**

Author: **Kumaren Perumal, Group Manager Finance and Technology Services**

Authoriser: **Kumaren Perumal, Group Manager Finance and Technology Services**

EXECUTIVE SUMMARY

This report is to inform Councillors on important issues relating to Council's finances.

RECOMMENDATION

That the Group Manager's Finance and Technology Services report dated 2 February 2021 titled 'Group Manager Finance and Technology Services Report' be received.

KEY FINANCIAL PERFORMANCE INDICATORS AND KEY FINANCIAL ISSUES REPORTS

The Key Financial Indicators and Key Financial Issues reports for the December quarter will be presented at the March 2021 Performance and Monitoring Committee meeting due to the Finance Team being fully committed in preparing the financial information for the draft 2021/31 LTP.

Financial reports for October 2020 are available on Stellar.

1. Ward and Development Trends Statistics (Attachment 1)

The Ward and Development Trends Statistics report highlights the level of subdivision activity within the District. The report also tables each statistical area and zone, the comparison of the last three financial years between July 2018 and June 2020 and a comparison of the October to December 2020 quarter for dwelling consents issued, additional lots created and additional lots proposed.

There were 46 new lots created for the three months to 31 December 2020 (2019:21).

The total number of residential and rural dwelling consents issued at 31 December 2020 is 247, against a full year forecast of 465 which is on track at this stage of the year. Waihi Beach-Bowentown have exceeded the projections in the first 6 months of the year with 11 more dwelling consents issued than the 21 projected, while Omokoroa, Minden, Waiorohi and Te Puke indicate these areas are on track to meet projected targets at this stage.

TECHNOLOGY UPDATE

2. CIO Technology update

An overview of the project work the information technology and business solutions teams are working on is as follows:

Kerbside Waste Collection Service	Providing technical advice and assistance to deliver data to the contractor and meet customer information requirements. This has included issuing approximately 230 rural id numbers to rural properties and contacting properties with more than one dwelling.
3 Waters Joint Maintenance Contract	Providing technical input to the system requirements and supporting contract negotiations with the preferred supplier.
E District Plan Implementation	Council has procured Isovist, an e-plan solution, and implementation is underway with the GIS team providing support to the project.
LTP Submission Process	Preparation of requirements for managing staff comments for LTP submissions is in progress.
Online Payments	An online payment upgrade is in progress that will allow customers to pay directly from their bank account for BNZ and Westpac customers.
Insight Reporting	A review of the reporting system is being prepared with some recommendations for minor modifications to be made by the developer. Supporting projects to be displayed spatially.
ERP Replacement Project	Project preparation is underway including business case, procurement plans and discussions for a pilot of Datascape CRM.

QUARTERLY SCORECARD UPDATE

The quarterly scorecard report for the December 2020 quarter will be presented at the March Performance and Monitoring Committee meeting owing to the timing of financials.

ATTACHMENTS

1. Ward and Development Trends Statistics Report ⇩

WARD AND DISTRICT DEVELOPMENT TRENDS STATISTICS FOR OCTOBER – DECEMBER 2020

1. Purpose and Summary

The purpose of this report is to provide information to the elected members detailing ward and district level data from July 2018 – December 2020 regarding three indicators of development in the District.

2. Discussion on Issue

This report provides ward and district level data regarding three indicators of development in the District:

- **New dwelling consents issued** *(includes new dwellings)*
- **Additional lots created at Section 224 approval stage**
- **Additional lots proposed at subdivision application stage** *(please note the actual number of lots created may change during the consent process)*

These indicators are designed to reflect subdivision and dwelling consents issued and recorded on a quarterly basis in the District.

The report includes graphs and tables per Statistical Area, ward and zone showing the comparison of the last three financial years between July 2018 and June 2020. The report also includes the comparison of January 2019 to December 2019 and January 2020 to December 2020 for dwelling consents issued, additional lots created and additional lots proposed. See below for further detail.

3. Internal and External Communication

No internal and/or external communication required.

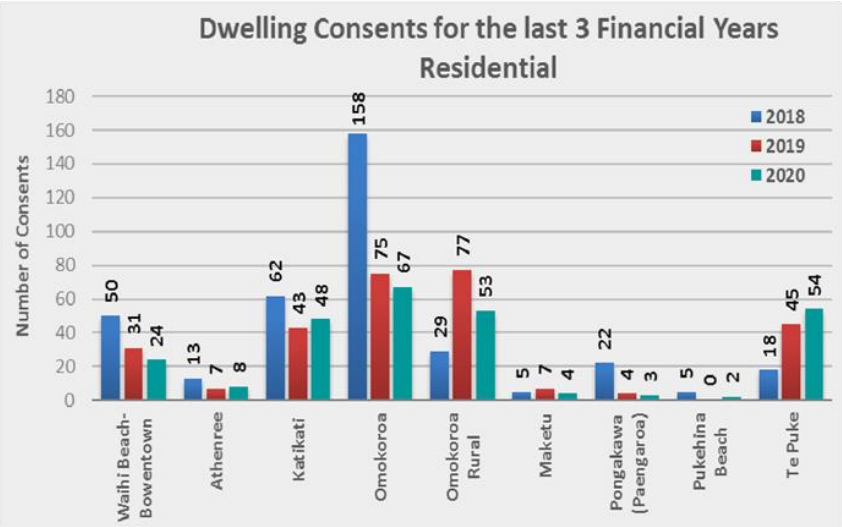
Antoinette Denton
Research and Monitoring Analyst

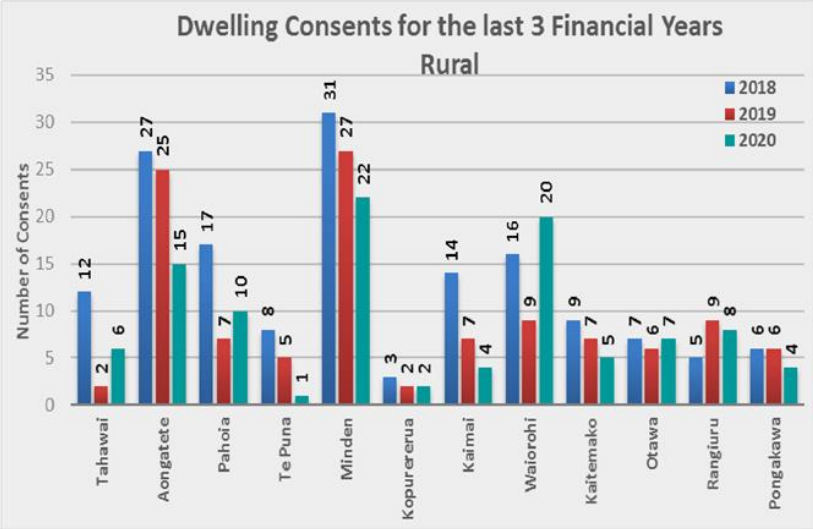
A3750409

Growth Monitoring Statistics as at 31 December 2020

DWELLING CONSENTS

Dwelling Consents over the last 3 Financial Years

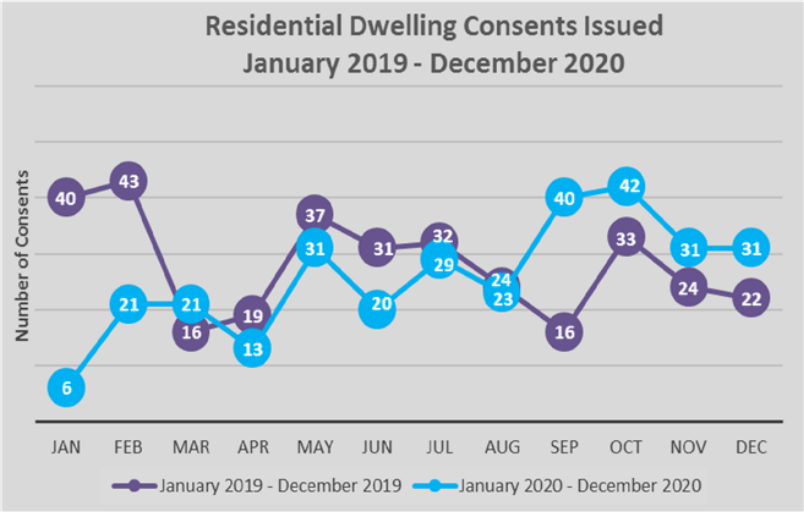


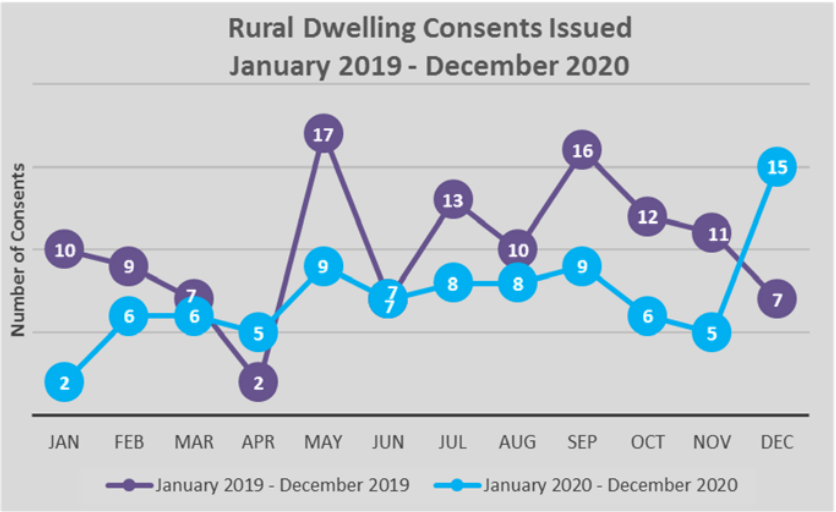


Total Residential and Rural Dwelling Consents Issued	2018	2019	2020
	517	401	367

A3967930

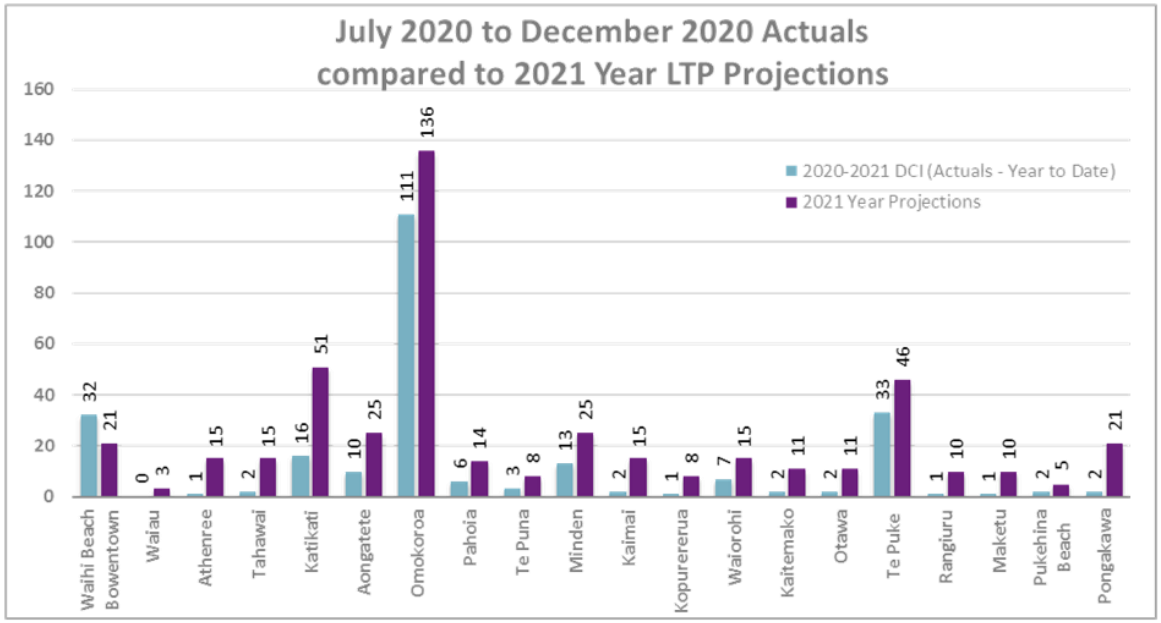
Dwelling Consents: October 2020 – December 2020





Dwelling Consents Issued		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Residential	January 2019 - December 2019	40	43	16	19	37	31	32	24	16	33	24	22	**337**
	January 2020 - December 2020	6	21	21	13	31	20	29	23	40	42	31	31	**308**
Rural	January 2019 - December 2019	10	9	7	2	17	7	13	10	16	12	11	7	**121**
	January 2020 - December 2020	2	6	6	5	9	7	8	8	9	6	5	15	**86**

Actual Dwelling Consents Issued up to December 2020, compared to the projected 2021 year of the 2021-2031 Long Term Plan Projection



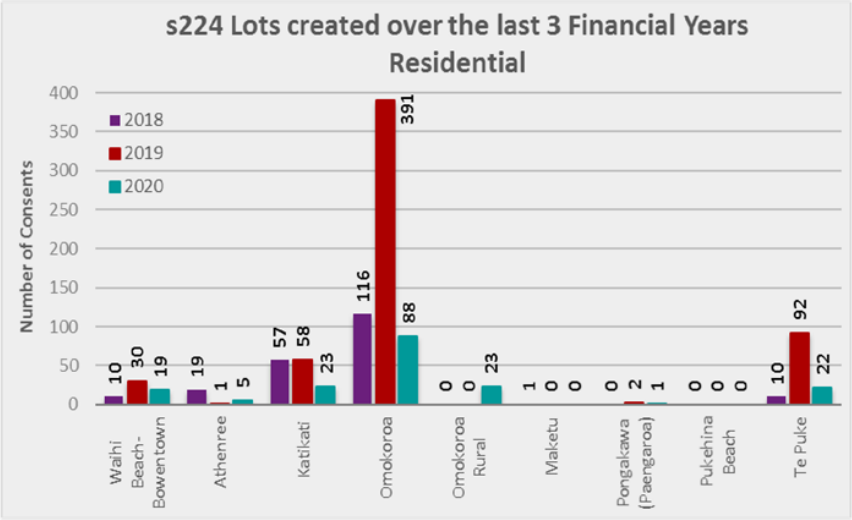
Comments:

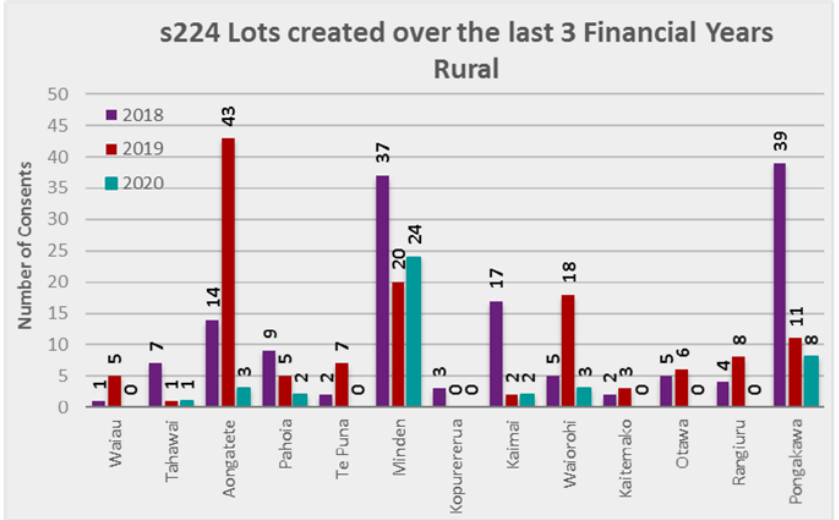
- Dwelling consents issued for the October 2020-December 2020 quarter increased by 32% in the residential zones, while in the rural zones it increased by 19% compared to the same quarter in 2019.
- Compared to the last 6 months (July 2020-December 2020), dwelling consents increased by 30% in the residential zones and 12% in the rural zones.
- Waihi Beach-Bowentown have exceeded the projections in the first 6 months of the year, with 11 more dwelling consents issued than the 21 projected, while Omokoroa, Minden, Waiorohi and Te Puke indicate these areas are on track to meet projected targets at this stage.

A3967930

SUBDIVISION

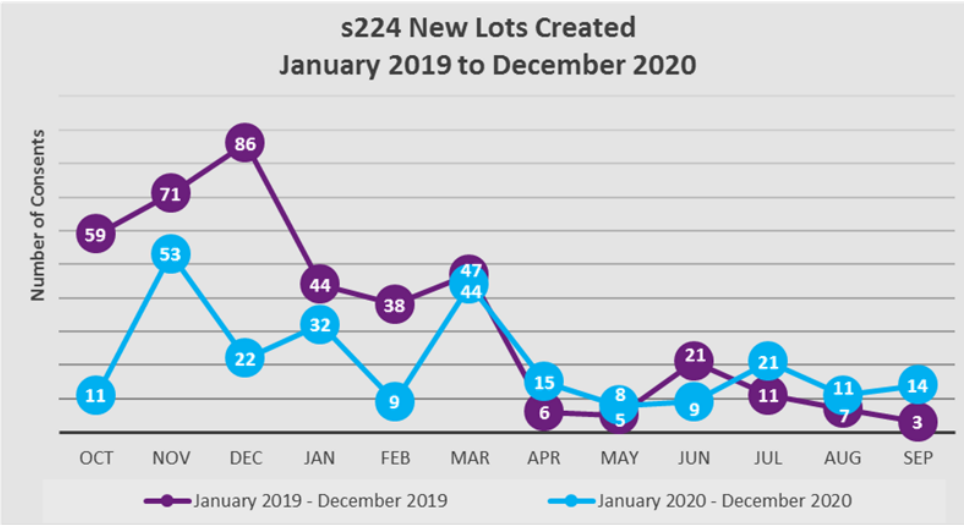
S224 Lots Created over the last 3 Financial Years





Total New Lots Created (s224)	2018	2019	2020
	358	703	224

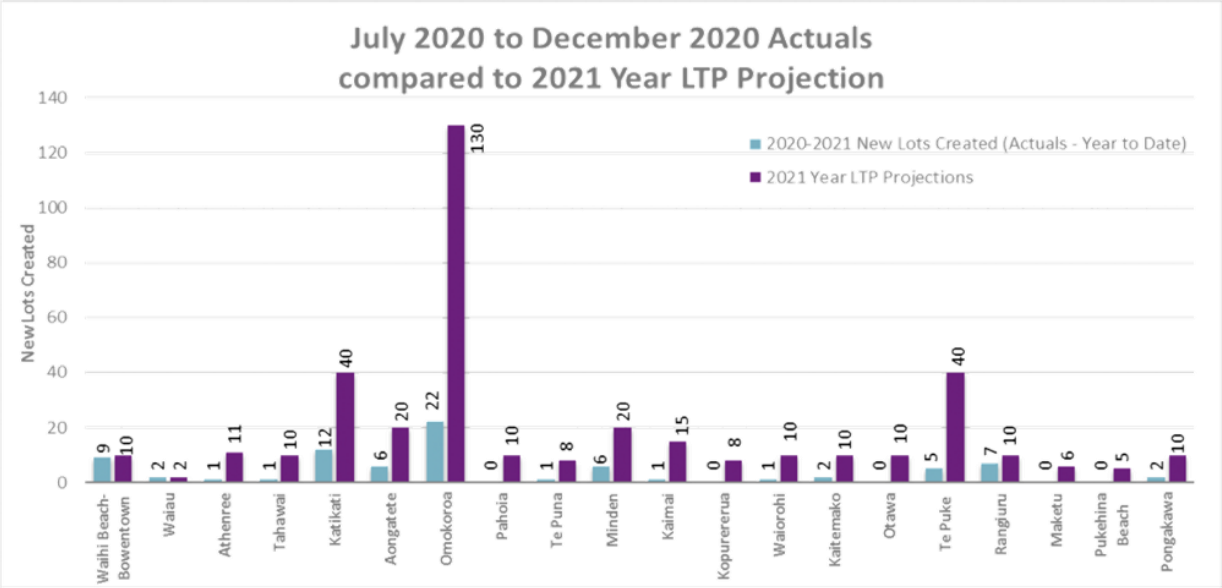
224 Lots Created: October 2020 – December 2020



s224 Lots Created	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
January 2019 - December 2019	59	71	86	44	38	47	6	5	21	11	7	3	**398**
January 2020 - December 2020	11	53	22	32	9	44	15	8	9	21	11	14	**249**

A3967930

Actual New Lots Created up to December 2020, compared to the projected 2021 year of the 2021-2031 Long Term Plan Projection

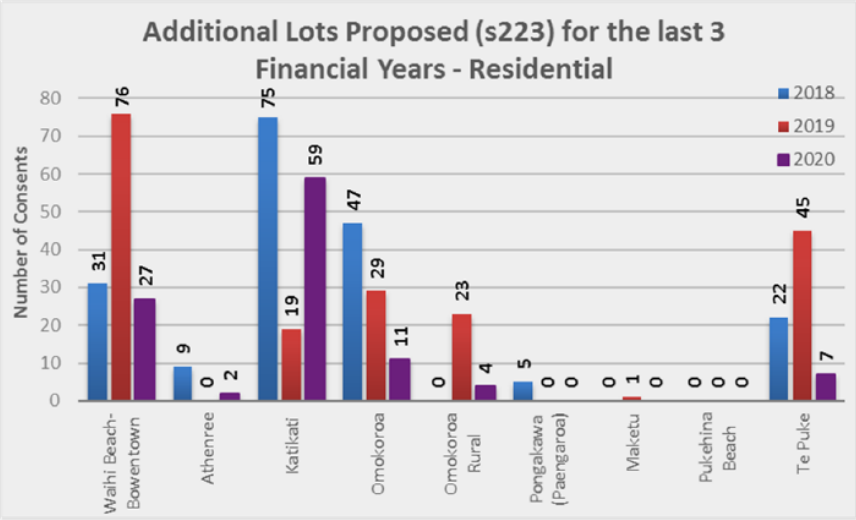


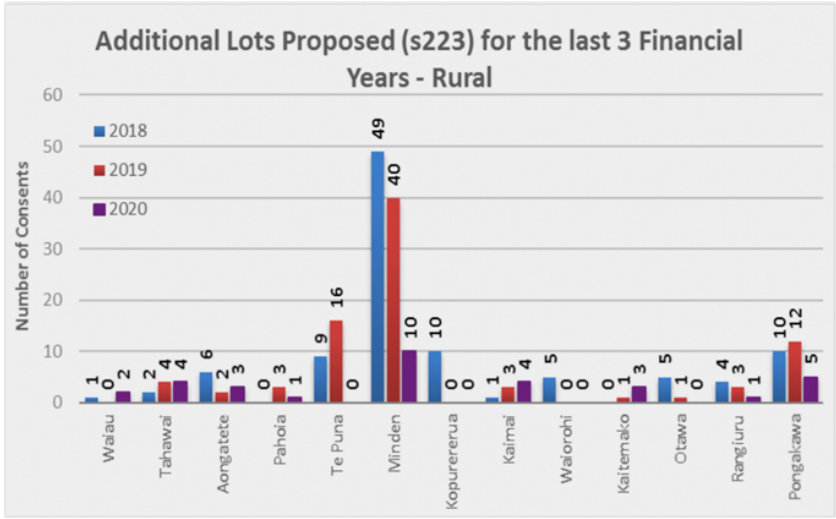
Comments:

- In Omokoroa the developers stage the consents, which means some months more Finco's are received than other months.
- In the October 2020-December 2020 quarter, 25 more new lots were created than the same quarter of 2019.
- Subdivision projections in the rural areas were conservative, but the actuals are trending lower than expected.

ADDITIONAL LOTS PROPOSED

S223 Lots Proposed over the last 3 Financial Years

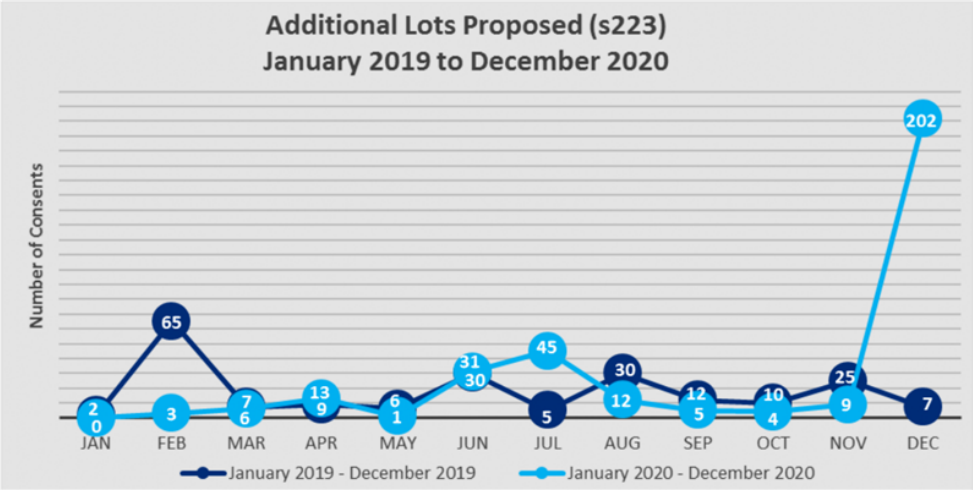




Additional Lots Proposed (s223)	2018	2019	2020
	291	278	143

A3967930

S223 Lots Proposed: October 2020 – December 2020



Additional Lots Proposed (s223)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
January 2019 - December 2019	2	65	7	9	6	30	5	30	12	10	25	7	**208**
January 2020 - December 2020	0	3	6	13	1	31	45	12	5	4	9	202	**331**

Comments:

- In December 2020, 46 new consents at s223 were granted in Te Puke (38x at No.3 Road and 8x at Dunlop Road) and 152 new consents for Omokoroa (Harbour Ridge - Goldstone Road).
- Discussions for 84 new lots in the Te Puke area have recently commenced and will be consented in the next 2 months.

9.2 CIVIC FINANCIAL SERVICES STATEMENT OF INTENT FOR YEAR ENDED 31 DECEMBER 2021

File Number: **A3968075**

Author: **Kumaren Perumal, Group Manager Finance and Technology Services**

Authoriser: **Kumaren Perumal, Group Manager Finance and Technology Services**

EXECUTIVE SUMMARY

1. The purpose of this report is to provide the Elected Members with Civic Financial Services Limited's (Civic) Statement of Intent for 2021 **(Attachment 1).**

RECOMMENDATION

That the Group Manager Finance and Technology Services' report dated 2 February 2021 titled 'Civic Financial Services Statement of Intent for Year Ended 31 December 2021' be received.

BACKGROUND

2. Civic Financial Services administers superannuation services for Local Government and Local Government staff via SuperEasy and the SuperEasy KiwiSaver Superannuation Scheme. The Company also provides a range of other services to Local Authority Protection Programme (LAPP), Riskpool, Civic Liability Pool and Civic Property Pool.

3. Civic Financial Services will provide Shareholders an audited Annual Report for 2020 by 30 April 2021 and a report on the first half of 2021 by 30 September 2021 containing a review of the Company's operations during the half year and unaudited half-yearly accounts.

ATTACHMENTS

1. Civic Financial Services Statement of Intent 2021

CIVIC FINANCIAL SERVICES LIMITED

STATEMENT OF INTENT

FOR THE YEAR ENDED 31 DECEMBER 2021

TABLE OF CONTENTS

1.0 Mission Statement

Mission Statement of Civic Financial Services Ltd
To provide superannuation and risk-financing solutions to the local government sector

2.0 Corporate Goals

The specific goals of the Company are:

2.1 To operate as a sound and successful business.

2.2 To be the primary supplier of superannuation and risk-financing services to the local government sector.

2.3 To investigate and facilitate, as appropriate, new products and markets in superannuation and risk-financing and such other markets that it believes could prove beneficial to its shareholders and the local government sector.

3.0 Nature and Scope of Activities

3.1 The Company administers superannuation services for local government and local government staff via SuperEasy and the SuperEasy KiwiSaver Superannuation Scheme.

3.2 The Company provides administration, accounting, and a range of other services to LAPP, Riskpool, CLP (Civic Liability Pool) and CPP (Civic Property Pool).

3.3 The Company investigates and facilitates as appropriate such new superannuation and risk-financing services and/or markets that it believes will prove beneficial to its shareholders and the local government sector.

3.4 In a modest and selective way the Company provides sponsorship for a range of local government activities at regional and national level.

4.0 Financial Projections

Civic's projected profit outlook over the next three years is shown in the tables below.

Civic's main revenue streams will come from two sources: fees from providing administration services and investment income.

Profits from providing administration services: Civic's primary source of income in 2021 will come from providing superannuation services for local government and local government staff via the SuperEasy and the SuperEasy KiwiSaver Superannuation Schemes, supported by administration, accounting, and a range of other services to LAPP, Riskpool, Civic Liability Pool and Civic Property Pool.

Profits from investment income: Civic's income in 2021 other than from providing administration services will come solely from investment income.

Dividends: Civic has resolved not to pay any dividends to its shareholders. Civic with overwhelming support from the 2020 Special General Meeting, will apply the funds that could otherwise be provided as dividends to effect a reduction to the management fees for the members of the SuperEasy and SuperEasy KiwiSaver Superannuation Schemes. The reason for this decision is to support and enhance Civic's primary source of income from providing administration services to these schemes.

Fee reduction for our SuperEasy and SuperEasy KiwiSaver Superannuation Schemes: For the reasons described above we will be reducing the schemes' base investment management fee from 1 April 2021 from a rate of 0.44% per annum to 0.40% per annum. This reduced fee structure has been taken into consideration and is reflected in the projections below.

Financial projections for 2021 to 2023 are:

	2021	2022	2023
Administration Income	$2,443,312	$2,525,085	$2,537,487
Investment Income	$103,175	$107,000	$112,000
Revenue	$2,546,487	$2,632,085	$2,649,487
Expenses	$2,197,367	$2,216,512	$2,251,994
Surplus before tax	**$349,120**	**$415,573**	**$397,493**
Surplus after tax	**$251,367**	**$299,213**	**$286,195**

Please note that these are projections, not firm predictions.

5.0 Performance Targets and Measures

5.1 We aim to provide superannuation services to at least 90% of local authorities.

5.2 We plan to continue to be an efficient and effective administration manager for LAPP, Riskpool, CLP and CPP.

6.0 Reporting to Shareholders

6.1 We will provide an audited annual report for the 2020 year by 30 April 2021.

6.2 We will provide a report on the first half of 2021 by 30 September 2021. The report will contain a review of the Company's operations during the half year and unaudited half-yearly accounts.

7.0 Acquisitions/Disposals

Any acquisition or disposal that is equivalent to 50% or more of the Company's assets will constitute a "major transaction" under the Company's constitution and approval of the shareholders will be sought in accordance with the constitution. Any acquisition that is equivalent to 25% or more but less than half of the Company's assets will constitute a "minor transaction" under the Company's constitution and consultation with shareholders will take place.

8.0 Transactions with Related Parties

The Company has 72 local authority shareholder members plus TrustPower (holding 1.22%). Local Government Superannuation Trustee Limited and Local Government Mutual Funds Trustee Limited are wholly owned subsidiaries of the Company. Because it is sharing management resources, the Local Authority Protection Programme (LAPP), Riskpool, CLP and CPP are also considered to be related parties. Transactions with shareholder members include risk-financing services and superannuation related financial services.

Charges to and from shareholder members will be made for services provided as part of the normal trading activities of the Company and its subsidiaries. Transactions with shareholder members are on a wholly commercial basis.

***** END *****

9.3 BOPLASS LIMITED ANNUAL REPORT FOR THE YEAR ENDED 30 JUNE 2020

File Number: **A3975073**

Author: **Kumaren Perumal, Group Manager Finance and Technology Services**

Authoriser: **Kumaren Perumal, Group Manager Finance and Technology Services**

EXECUTIVE SUMMARY

The purpose of this report is to provide the Elected Members with BOPLASS Limited's Annual Report for the year ended 30 June 2020 (Attachment 1).

BOPLASS Limited's Annual Report was approved by Audit New Zealand on 30 November 2020 and received by Council on 30 November 2020.

RECOMMENDATION

That the Group Manager Finance and Technology Services' report dated 2 February 2021 titled 'BOPLASS Limited Annual Report For The Year Ended 30 June 2020' be received.

BACKGROUND

Bay of Plenty Local Authority Shared Serviced Limited (BOPLASS) is a Council-Controlled Organisation (CCO) set up to provide councils in the Bay of Plenty region with an umbrella vehicle to investigate, procure, develop and deliver shared services.

Under Section 67 of the Local Government Act 2002, within 3 months after the end of each financial year, the board of a council-controlled organisation must deliver to the shareholders and make available to the public, a report on the organisation's operations during that year, including financial statements and auditor's report.

SUMMARY OF ACHIEVEMENTS

BOPLASS has continued to develop collaboration between councils in the delivery of services. Despite COVID-19, BOPLASS has been able to remain on target during the various stages of alert levels. The last year has seen a marked increase in the level of inter-regional collaboration BOPLASS is involved in with a number of procurement initiatives or shared services being developed in conjunction with other Local Authority Shared Services (LASS) or Councils.

Some of the year's highlights are noted below:

- Appointment of a provider for insurance brokerage and risk management services. BOPLASS developed this procurement initiative on behalf of 28 North Island councils. Working in conjunction with the other LASS', this collective approach provided significant benefits throughout the tender process, as it was managed as a single project. Best practice service is now being delivered to all councils, providing savings in both fees and insurance premiums.

- Achieved a number of targets in accordance with the BOPLASS Statement of Intent (SOI) 2019/22, including contracts negotiated and/or renewed for a number of services such as internal audits, video conferencing services, GIS software, print media, N3 purchasing group and media monitoring services.

- BOPLASS has also investigated new joint procurement initiatives for goods and services for BOPLASS councils including regional LIDAR Capture, Infrastructure Insurance, Standards New Zealand, Accounts Payable Automation Software, Human Resources Information Systems, Insurance Brokerage and Risk Management Services.

- BOPLASS have also extended their level of support to councils that are managing or investigating shared services projects through the appointment of a 0.6 full time equivalent (FTE) and 0.25 FTE resource and expertise to assist councils in shared services developments and projects.

The company's performance results against its 2019/22 Statement of Intent targets are disclosed on pages 8-13.

ATTACHMENTS

1. BOPLASS Limited Annual Report 2019-2020 ⇩

ANNUAL REPORT 2019-2020







For the year ended 30 June 2020

BOPLASS Ltd

"COUNCILS PARTNERING FOR VALUE AND SERVICE"

TABLE OF CONTENTS

BOPLASS Ltd

PART ONE – OUR YEAR

BOPLASS Chair's Report

On behalf of our Directors I am pleased to present the BOPLASS 2020 Annual Report. Due to COVID-19, the latter part of the financial year has not been without its challenges for our shareholding councils. However, I am pleased to report that BOPLASS has been able to remain on target during the various stages of the alert levels and has delivered against all financial and performance measures.

Although adjustments naturally had to be made to some business operations, the unprecedented impact of COVID-19 highlighted BOPLASS' effective administration systems, with the ability of staff to immediately transition to working remotely. They have been able to continue operations almost seamlessly while still progressing projects and collaborating with our constituent councils and the greater local government community. The Board acknowledges and thanks the significant commitment of the staff during this period.

Some of the projects BOPLASS was involved with were brought forward during the lockdown to ensure we were able to assist councils with some of their challenges or requirements during this time. BOPLASS assisted councils with:

- Establishing expanded video conferencing options to ensure council meetings could continue and remote working staff had full connectivity within their organisations. The increased video conferencing capacity and managed service proved to be tremendously helpful in keeping councils connected.
- Media Monitoring services were significantly increased, with the BOPLASS supplier circulating essential daily COVID-19 updates and summaries to councils (at no cost).
- Health and Safety management meetings were held weekly, providing an opportunity for sharing of pandemic planning information between the councils and the collective development of protocols as the alert levels changed.
- Key updates and support were provided by BOPLASS providers to treasury staff, risk managers and finance managers during the changing alert levels.

During the initial lockdown the value of some of the 'less visible' activity that BOPLASS is involved with became more obvious and has created greater awareness of the incremental value and benefits being delivered through the coordinated collaboration across BOPLASS councils.

The last year has seen a marked increase in the level of inter-regional collaboration BOPLASS is involved in, with a number of procurement initiatives or shared services being developed in conjunction with other LASS or councils. This is proving to be a very efficient way to progress common initiatives through: lowering the effort required by all parties, providing greater leverage, reducing costs, and often resulting in a common standard across a large group of councils.

A key inter-regional project undertaken this year has been the appointment of a provider for insurance brokerage and risk management services. BOPLASS developed this procurement initiative on behalf of 28 North Island councils. Working in conjunction with the other LASS this collective approach provided significant benefits throughout the tender process, as it was managed as a single project. The tender achieved a good response from the market and a very good outcome for all participating councils; resulting in a best-practice service now being delivered to all councils and providing savings in both fees and insurance premiums.

The MahiTahi Collaboration Portal was used as the primary means of running this important tender across multiple councils and proved to be a very good example of simplifying the sharing of information and collaborating in the development of tender documents and information.

During the last year there has been further uptake of the MahiTahi Collaboration Portal across New Zealand councils and within local government. The Portal proved to be an invaluable tool during COVID-19 lockdowns as councils were able to collaborate with their peers in other councils and easily share information while working remotely. During this period BOPLASS offered the Portal to all NZ councils to use without any cost or commitment.

The BOPLASS Health and Safety Group have become active users of the MahiTahi Collaboration Portal and this has helped create a virtual team of health and safety expertise across the region. Working in conjunction with Waikato LASS a number of new health and safety initiatives continue to be identified by this group for future collaboration.

A very good outcome was achieved by BOPLASS in the placement of councils' infrastructure insurance into the international markets. Due to the tightening capacity within the London markets BOPLASS investigated alternative options by completing presentations into other markets. The resultant competitive tension assisted in creating a very good outcome for the group with favourable rates and terms achieved for all councils.

It has been a good year for BOPLASS despite the challenges of COVID-19. We have been pleased to have played a part in supporting our constituent councils and helping them deal with the consequences of COVID-19. The company has continued to contribute significant value to our councils by maximising the value out of existing contracts and undertaking new initiatives over the last year. We would like to thank the council staff involved for the important support they provide to BOPLASS projects.

Craig O'Connell
Chair

Company Directory

Nature of Business	Shared Service Provider
Registered Office	91 Willow Street, Tauranga 3110
Telephone:	+64 7 577 7342
Email:	contact@boplass.govt.nz
Website:	https://www.boplass.govt.nz
Incorporation Number	2074873
Incorporation Date	14 January 2008
IRD Number	98-965-361
Directors	Aileen Lawrie Craig O'Connell Fiona McTavish Gareth Green Geoff Williams Martin Grenfell Miriam Taris Nedine Thatcher-Swann Russell George Stephanie O'Sullivan
Shareholders	Bay of Plenty Regional Council Gisborne District Council Kawerau District Council Opotiki District Council Rotorua Lakes Council Taupo District Council Tauranga City Council Western Bay of Plenty District Council Whakatane District Council
Auditor	Audit New Zealand
Bankers	ANZ Bank
Solicitors	Cooney Lees and Morgan

Statement of Intent and Performance

The company has complied with section 64 of the Local Government Act 2002 (LGA) and has had the Statement of Intent for 2020-2023 and associated budget formally adopted by the directors by resolution on 22 June 2020.

Performance Targets 2020-2023

To ensure the company continues to operate effectively in both governance and management terms over the next three years the targets are to:

Targets 2020-2023	**How**	**Measure**
Ensure supplier agreements are proactively managed to maximise benefits for BOPLASS councils.	Manage and/or renegotiate existing contracts.	Contracts are reviewed annually to test for market competitiveness. New suppliers are awarded contracts through a competitive procurement process involving two or more vendors where applicable.
Investigate new Joint Procurement initiatives for goods and services for BOPLASS councils.	Procure from sources offering best value, service, continuity of supply and/or continued opportunities for integration.	A minimum of four new procurement initiatives investigated. Initiatives provide financial savings of greater than 5% and/or improved service levels to the participating councils.
Identify opportunities to collaborate with other LASS in Procurement or Shared Service projects where alliance provides benefits to all parties.	BOPLASS to regularly engage with other LASS to identify and explore opportunities for further inter-regional collaboration.	Quarterly reporting on engagement and a minimum of one new collaborative initiative undertaken annually.
Further develop and extend the Collaboration Portal for access to, and sharing of, project information and opportunities from other councils and the greater Local Government community to increase breadth of BOPLASS collaboration.	Increase usage of the Collaboration Portal by providing support and training material for new and existing users. Proactively market the benefits to councils.	Number of listed projects to increase by 10% per year. Number of active users to increase by 20% per year.
Communicate with each shareholding council at appropriate levels.	Meeting with each Executive Leadership Team.	At least one meeting per year.
Ensure current funding model is appropriate.	Review BOPLASS expenditure and income and review council contributions and other sources of funding.	Performance against budgets reviewed quarterly. Company remains financially viable.

Statement of Intent and Performance continued

The following is a report of performance against targets set in the Statement of Intent for 2019/22.

Target 2019/20	Result	Narration
Ensure supplier agreements are proactively managed to maximise benefits for BOPLASS councils. Manage and/or renegotiate existing contracts. Contracts are reviewed annually to test for market competitiveness. New suppliers are awarded contracts through a competitive procurement process involving two or more vendors where applicable.	Achieved	Contracts negotiated and/or renewed for: Internal Audits – Following a review by BOPLASS councils, the Internal Audit Services agreement has been renewed with KPMG. The collective arrangement provides competitive pricing for these services but also enables the sharing of internal audit information and insights across the group. Video Conferencing Services – Video conference services with Canon and Zoom enhanced and expanded to deliver desktop and meeting room services to participating councils. Specific project undertaken to increase capacity, create additional meeting rooms and ensure licences were available to all councils/users during the pandemic. GIS software and services – FME Geocortex Essentials Geocortex Analytics X-Tools NZ Archaeological Association RetroLens Contracts renegotiated and renewed – no alternative suppliers. Print Media Copyright Agency (PMCA) – Collective contract and requirements reviewed and renewed with PMCA – the sole NZ provider of print and media copyright services. ESRI Enterprise Licensing Agreement – Core GIS software used in all BOPLASS councils. BOPLASS Enterprise Agreement renewed with no increases in cost to councils. No alternative provider in NZ. N3 – Purchasing group (previously known as GSB) membership negotiated by BOPLASS. Councils achieving significant savings on membership costs and trade pricing through the group scheme. Sole NZ provider. Vertical Horizonz – Renegotiated Health and Safety training contract for a further two-year period with the same terms, conditions, and costs.

		Inter-Council Network – High-speed fibre network providing connectivity to and between BOPLASS councils. Significant cost savings through renegotiation of some contracts, utilisation of newer technologies, and design changes. Multiple contracts and suppliers. Media Monitoring services – iSentia reappointed as media monitoring provider to the BOPLASS councils following a review process undertaken by councils' communication managers. This service has provided significant value to the councils this year with the BOPLASS provider providing daily COVID-19 media summaries covering all essential information from NZ and international media.
Investigate new Joint Procurement initiatives for goods and services for BOPLASS councils. Procure from sources offering best value, service, continuity of supply and/or continued opportunities for integration. A minimum of four new procurement initiatives investigated. Initiatives provide financial savings of greater than 5% and/or improved service levels to the participating councils.	Achieved	The new procurement initiatives which have been investigated during the year are as follows: Tender Facilitation – BOPLASS led a competitive process for the appointment of a facilitator to manage a collective procurement process on behalf of BOPLASS, Waikato LASS, MW LASS and Hawke's Bay councils. Grant Thornton NZ Ltd were appointed. Regional LiDAR Capture 2020–2025 – Working in conjunction with Land Information NZ, a tender process was run to appoint a provider for LiDAR capture across the Bay of Plenty region. Aerial Surveys Ltd were appointed to complete a region-wide five-year plan for LiDAR capture. The data will be used by councils to create highly accurate 3D terrain and surface models of the land, which are vital for flood modelling purposes and mapping water flows. Infrastructure Insurance – Securing councils' insurance cover requires a new procurement process to be undertaken every 12-months, with a variety of insurers and underwriters engaged, to negotiate favourable terms and competitive pricing. This year BOPLASS represented a collective group of NZ councils for direct placement into the London markets for councils' infrastructure insurance. Options for placements into the Asian markets were also explored. Through this competitive process and the aggregated approach, BOPLASS councils were able to achieve rates with an average 20% discount compared with each council securing individual policies. A new contract was established with a mix of Lloyds' syndicates. Standards NZ – BOPLASS engaged with Standards NZ to host a single BOPLASS portal to allow all councils to access the full Standards catalogue at significantly reduced pricing. BOPLASS councils were using differing forms of access/licences with not all councils having access to the same range of Standards data. The

		collective agreement has meant a broader range of catalogues are available to all councils and at a lower cost than individual arrangements. This has enabled better utilisation of Standards and negated expensive individual subscriptions. Accounts Payable Automation Software – Following presentations from vendors on workflow automation for the BOPLASS councils, Esker were selected as the preferred solution for the implementation of Accounts Payable automation software. FME Server – GIS software. Reviewed options for multiple councils to participate in shared procurement of this software rather than purchasing individual licences. BOPLASS currently manages shared procurement of the FME Desktop software on behalf of councils. Human Resources Information Systems – BOPLASS undertook an investigation into opportunities for the collective procurement of an HR information system and the development of a standardised platform across the councils. It was agreed for the BOPLASS councils to review options available under the All of Government purchasing. Insurance Brokerage and Risk Management Services – BOPLASS led a procurement project on behalf of BOPLASS, Waikato LASS, MW LASS and Hawke's Bay councils for the appointment of an insurance broker. The collective approach to the tender delivered considerable value, including savings in fees and premiums, but also an opportunity to share best practices and further align insurance programmes across the regions. Aon NZ Ltd were appointed as broker by all participating LASS and councils.
Provide support to BOPLASS councils that are managing or investigating Shared Services projects. BOPLASS to provide 0.25 FTE resource and expertise to assist councils in Shared Services developments and projects. Resource assignment measured from project job tracking.	Achieved	0.6 FTE provided through BOPLASS staff engagement committed directly to support of council shared service projects or individual council support – measured by fortnightly timesheets. Support provided to councils in development of the following services: Robotic Process Automation (RPA) – BOPLASS is leading a project to review opportunities for RPA services to be developed collectively and shared across participating councils. RPA provides an opportunity for the automation of repeatable processes that can run without intervention. A presentation of existing services has been completed and options for developing a centre of excellence are being explored as a means of supporting collaborative development and the efficient use of design/development expertise. This project is ongoing.

		Treasury Staff – Meetings have been coordinated by BOPLASS for councils' treasury staff and finance representatives to be provided information from senior economists on New Zealand and international economies. This has been proven to be particularly valuable given the current international and NZ economic turmoil. Sustainable Public Procurement – BOPLASS Councils are participating in this project in conjunction with the Sustainable Business Network and Toi Ohomai. The collective approach provides opportunity for local government procurement policies and practices to become better aligned with national objectives of sustainability and identify where improvements might be made. BOPLASS has engaged with MBIE to ensure the scope and goals align with central government procurement strategies. Debt Recovery Services – Partnering with MW LASS and being provided as a shared service, BOPLASS councils have access to Debt Management Central to provide specialised local government debt recovery services. Several councils have now begun using this shared service. Inter-Council Network (ICN) – Review, redesign and renegotiation of suppliers and services. The ICN is a shared service high capacity fibre network connecting the majority of BOPLASS councils. A review of ICN contracts was undertaken to deliver further cost reductions and improved capacity. Zoom Video Conference Services – Zoom video conference services were established and implemented as a shared service option for BOPLASS councils providing for centralised account management and shared infrastructure for participating councils. Civil Defence Emergency Management GIS Group – GIS data and tools are now an integral part of a Civil Defence response and the BOPLASS councils have formed a group to work collaboratively on CDEM initiatives. This approach is largely made possible due to all councils using the same core GIS systems aligned through BOPLASS contracts. Standardisation of Insurance Valuations – Support was provided to councils in establishing a common standard of reporting for insurance asset valuations. Developing a consistent standard and a common valuations process has been extremely beneficial to the BOPLASS infrastructure insurance programme through providing improved, consistent, and accurate data to the international markets when negotiating placements of councils' insurance.

		Inter-LASS collaboration – A number of procurement projects are underway or being investigated covering multiple LASS and benefitting from the aggregated volumes. Collaboration across the regions is driving greater efficiencies within collective projects and allows the projects to be better resourced. BOPLASS has been working particularly closely with MW LASS and Waikato LASS and has recently provided information to South Island councils investigating collective opportunities. Regional Waste Operator Licensing and Data Collection – Cross-regional approach to establishing a regional or cross-regional entity that would administer and enforce licensing conditions on behalf of territorial authorities. Project aims to ensure a level playing field for all waste operators in a council's area while enabling councils to collect the data necessary to prepare detailed waste assessments and inform effective identification of priority waste management and minimisation actions. Skype for Business inter-council communication – Project to undertake investigation, testing and resolution of issues to resolve inter-council communication use of Skype for Business.
Further develop and extend the Collaboration Portal for access to, and sharing of, project information and opportunities from other councils and the greater Local Government community to increase breadth of BOPLASS collaboration. Increase usage of the Collaboration Portal by providing support and training material for new and existing users. Proactively market the benefits to councils. Number of listed projects to increase by 20% per year. Number of active users to increase by 20% per year.	Achieved	Active promotion of the MahiTahi Collaboration Portal over the last 12 months has resulted in a 60% increase in the number of local government users with 85 new members joining. Ongoing development of on-boarding and training material to help increase membership and support ongoing usage. Training provided to councils to maximise usage and ensure increased uptake. During COVID-19 lockdowns the MahiTahi Collaboration Portal was marketed through SOLGM to all NZ councils' CEOs as an online collaboration tool. Collaboration Portal demonstrations provided to collaborative advisory groups. Nine additional projects added to the Collaboration Portal increasing from 39 to 48 lodged projects. The number of Collaboration Portal specialised channels and teams have increased by 14 over the last year with 66 channels and 6 specialised teams now registered. Developed a new fit-for-purpose back-up solution using DATTO to increase robustness and reliable access to shared material. Developed Terms of Service for the Collaboration Portal to provide governance and security for BOPLASS, member councils, and portal participants.

		Development of Azure services to further support the Collaboration Portal, including implementing multi-factor authentication of portal administrators and migration of DNS services to Azure.
Communicate with each shareholding council at appropriate levels. Meeting with each Executive Leadership Team. At least one meeting per year.	Achieved	BOPLASS continues to regularly engage with our constituent councils, senior management and shareholders to ensure opportunities continue to be developed to the benefit of all stakeholders. Executive-level meetings held with councils. Three Operations Committee meetings held during the year with executive level input provided by all shareholding councils. Executive Leadership Team representation and attendance at one or more meetings from every council.
Ensure current funding model is appropriate. Review BOPLASS expenditure and income and review council contributions and other sources of funding. Performance against budgets reviewed quarterly. Company remains financially viable.	Achieved	The sources of BOPLASS funding and the viability of the funding model are regularly reviewed with financial reporting provided to the BOPLASS Board. Council contributions levied. Contributions received from activities producing savings. Vendor rebates collected. Monthly and quarterly performance reviewed. Financial statements reported and reviewed at Board meetings. Financial position year end 30 June 2020: $15,223 deficit.

Statement of Intent and Performance continued

The following is a report of performance against targets set in the Statement of Intent for 2018/19 and is provided for comparative purposes.

Target 2018/19	Result	Narration
Investigate new Joint Procurement initiatives for goods and services for BOPLASS councils. Procure from sources offering best value, service, continuity of supply and/or continued opportunities for integration. A minimum of four new procurement initiatives investigated. Initiatives provide financial savings of greater than 5% and/or improved service levels to the participating councils.	Achieved	The new procurement initiatives which have been investigated during the year are as follows: Infrastructure Insurance – BOPLASS represented a collective group of councils in negotiations for placement of councils' infrastructure insurance into the London markets. Although faced with a hardening insurance market BOPLASS councils were able to achieve particularly good outcomes as a result of our existing underwriter relationships and an established history within the London insurance markets. This was supported by accurate loss modelling information, asset valuations, and risk quantification data, all of which have become essential information in securing appropriate and competitively priced insurance. A new contract was established with a mix of Lloyds' syndicates. Eagle Training – Eagle Technology was engaged by BOPLASS to provide collaborative training on migrating ArcMap to ArcGIS Pro for BOPLASS councils GIS staff. This collective approach provided significant cost savings and improved inter-council information sharing. Aerial Imagery and LiDAR* 2018/19 – The tender for BOPLASS councils' specific areas and requirements within the BOPLASS regional flying calendar were awarded to AAM NZ Ltd. An additional financial saving of approximately $100,000 was achieved (beyond the benefits of a collective tender) through a unique flying and capture process being utilised. **LiDAR (Light Detection and Ranging) data, or height data, is precise laser measurements of the Earth's surface that is used for creating highly accurate 3D maps of the land. LiDAR is particularly useful for flood modelling purposes because it provides accurate terrain and surface models of the land. LiDAR allows us to better understand where water will flow, what protection may be needed and where the areas at greatest risk from flooding are.* Provincial Growth Fund Application for LiDAR Capture – BOPLASS successfully managed a coordinated regional approach to a Provincial Growth Fund application for co-funding for LiDAR capture for the entire Bay of Plenty region. Co-funding was made available to assist councils to invest in an expansion of 3D mapping to assist with supporting major development projects and improve land use management in our region. The successful application for co-funding will result in significant savings

		for BOPLASS councils' LiDAR and 3D mapping programmes. Antenno – Is a local government communications app that allows councils to push notifications to their communities. It also provides facilities for people to lodge service requests with their council directly through the app. BOPLASS negotiated a discount rate with Datacom for all BOPLASS councils. Lone Worker Field Solutions – The BOPLASS Health and Safety group have engaged with vendors to review communication and technology solutions to assist with protecting and connecting with lone or remote workers. Still under action. Robotic Process Automation – RPA provides an opportunity for the automation of repeatable processes that can run without intervention. BOPLASS has facilitated workshops with vendors and also with Auckland Council as they have developed a mature process for developing solutions based upon various business units' requirements. This project is ongoing. Accounts Payable Automation Software - BOPLASS led a project to identify collaborative opportunities for the automation of accounts payable processes through niche software or collective development of a shared solution. Negotiations are underway with a shortlisted provider. Still under action. PMCA NZME Premium Content - BOPLASS holds a collective PMCA licence on behalf of our constituent councils. BOPLASS identified that our licenced organisations cannot legally access premium media content without holding a corporate paywall premium subscription. BOPLASS investigated a project to establish a single corporate licence on behalf of our councils. It was determined that the service was not required by all councils and individual agreements would be pursued. Insurance Valuations – International underwriters for BOPLASS councils' insurances had requested we demonstrate a common standard of asset reporting aligned to a consistent standard for valuations reporting. Having this consistent data would assist them in better understanding the risk they are writing and, ultimately, would be reflected in their pricing. BOPLASS negotiated an agreement with Aon to review councils' valuation processes and establish consistent standards for valuation of assets. Discounted pricing and savings for all councils was achieved through a collective agreement. Contractor online inductions – The BOPLASS Health and Safety advisory group have investigated and shortlisted suppliers to deliver a collective solution for online inductions of contractors for all BOPLASS councils. Still under action.

		Eastern BOP Electricity Tender – At the request of Eastern Bay councils BOPLASS explored options for other BOPLASS councils to participate in a collective tender. After investigating with other councils it was determined that it was more beneficial for Eastern Bay councils to proceed with a separate tender. Health and Safety Management Software – A BOPLASS preferred supplier agreement has been established with Vault with preferential pricing applied to all participating Waikato and BOPLASS councils. The agreement provided significant savings for all councils and migration to the latest Vault version at no cost to participating councils.
Provide support to BOPLASS councils that are managing or investigating Shared Services projects. BOPLASS to provide 0.25 FTE resource and expertise to assist councils in Shared Services developments and projects. Quarterly satisfaction reviews with participating councils. Resource assignment measured from project job tracking.	Achieved	0.45 FTE provided through BOPLASS staff engagement committed directly to support of council shared service projects or individual council support – measured by fortnightly timesheets. Support provided to councils in development of the following services: Radio Telephony (RT) strategy – Push Wireless have been appointed as preferred supplier to coordinate region-wide Radio Telephone services and technologies. Standardisation of services and networks also provides the potential for further alignment in civil defence strategies. Bulk loading As Built Data questionnaire – Investigated aligning BOPLASS councils to common As Built data standards. Survey circulated to all GIS teams to benchmark current standards. Still under action. Solid Waste Management – Scoping for two of the three solid waste services that are being coordinated by BOPLASS has been completed, with significant opportunities for cross-regional collaboration identified: A regional or cross-regional approach to licensing and data collection for waste operators Diverting putrescible wastes from landfill The Regional Facilities Strategy project is awaiting commitment from Waikato councils before completing the initial scoping. Insurance Forum – BOPLASS hosted an insurance forum covering Waikato and BOP councils. BOPLASS arranged sponsorship and the forum was provided at no cost to the councils. Qualified speakers covered a number of critical insurance and risk topics. Councils benefitted from access to this important information through this forum. Health and Safety Inter-Council Audits – A framework has been developed to enable BOPLASS councils to request a peer review from other councils in the BOPLASS group with the objective of sharing knowledge and improving areas within Health and Safety.

		Asbestos protocol – Researched and shared best practice and protocols across councils and within BOPLASS Health and Safety Advisory group. Organised WorkSafe presentation. Ongoing sharing of information between councils. Sustainable Public Procurement – BOPLASS supported Toi-Ohomai Institute of Technology in a research report on Sustainable Public Procurement in the Bay of Plenty. BOPLASS has worked with CoBOP and The Sustainable Business Network to progress the opportunities identified in the report. BOPLASS councils' procurement managers have undertaken a project to collaborate in the development of sustainability procurement practices and policies. Health and Safety Benchmarking – The BOPLASS and Waikato LASS Health and Safety groups have established measures and systems for implementing a shared local authority health and safety benchmarking system. Support of Video Conferencing services for councils – Ongoing support for councils' in-house and external video conferencing services. Central management of virtual meeting rooms and directories. Investigation of updated services. Added Zoom services to councils' video conferencing services. Opotiki District Council Library and cloud services – BOPLASS IT Manager assisted in reconfiguration of network and led project to investigate options to move Opotiki District Council into the Cloud. Inter-Council Network (ICN) review, redesign and renegotiation of suppliers and services – The ICN is a shared service high capacity fibre network connecting the majority of BOPLASS councils. ICN design was reviewed and an evaluation of ICN contracts undertaken to deliver further cost reductions. Debt Collections – After investigating options for establishing a local shared service, BOPLASS engaged with MWLASS to develop an opportunity for BOPLASS councils to participate in the MWLASS debt management service – Debt Management Central (DMC) – as a shared service. An interLASS agreement has been agreed, with BOPLASS councils entering into individual contracts with DMC. Capital Construction and Civil Works Projects – A regional-wide marketing approach to civil projects is being reviewed. The focus of this approach is to market the project plans of the region as a whole to the construction sector and to help avoid the complex issue of regional versus local prioritisation for delivery of projects. The anticipated benefit of this approach is to attract a better response from contractors for councils across the region. Ongoing.

		Inter-LASS collaboration – BOPLASS continues to encourage collaboration between all LASSes and has established quarterly meetings for LASS leaders to share information and identify opportunities for collective partnering. Collaborative Training – Cross-council training has continued to be arranged across a number of areas of council business, providing for discounted rates, reduced staff travel (as trainers are prepared to travel to region for a larger group), opportunity to network with peers from other councils, and development of tailored material. BOPLASS Reviews – Undertaken during all advisory group meetings – at least quarterly.
Further develop and extend the Collaboration Portal for access to, and sharing of, project information and opportunities from other councils and the greater Local Government community to increase breadth of BOPLASS collaboration. Increase usage of the Collaboration Portal by providing support and training material for new and existing users. Proactively market the benefits to councils. Number of listed projects to increase by 20% per year. Number of Team Sites to increase by 20% per year. Portal is operational outside of the LASS groups with a minimum of ten additional councils or local government related organisations having utilised the portal.	Achieved	Project completed relaunching the Collaboration Portal with a more user-friendly platform under Microsoft Teams to enable and encourage a higher level of sharing from councils and the Local Government community. User survey feedback implemented along with a review of best practice methodologies. Ongoing promotion and profiling of the Collaboration Portal has resulted in more than ten additional councils or Local Government related organisations outside of the LASS group signing up to and using the Collaboration Portal, there are 24 councils or local government related organisations outside of the LASS group registered on the Portal. On-boarding, training material and training provided to councils to maximise usage and ensure increased uptake. Demonstrations of the Portal given to BOPLASS Advisory Groups and to councils' executive leadership teams. Number of projects has increased by 11 over the last year, there are now 39 lodged projects. The number of Collaboration Portal Team Sites have increased by 32 over the last year with 58 team sites now registered.
Ensure appointed vendors remain competitive and continued best value is returned to shareholders. Manage and/or renegotiate existing contracts. Contracts due for renewal are tested for competitiveness in the marketplace. New suppliers are awarded contracts through a competitive procurement process involving two or more vendors where applicable.	Achieved	Contracts negotiated and/or renewed for: Video Conferencing Services – New video conference services have been established using Canon and Zoom to deliver desktop and meeting room services to participating councils. GIS software and services – Geocortex Essentials Geocortex Optimizer X-Tools NZ Archaeological Association Contracts renegotiated and renewed – no alternative suppliers.

		Print Media Copyright Agency (PMCA) – Contract and requirements reviewed. Contract renewed with PMCA – sole NZ provider. ESRI Enterprise Licensing Agreement – BOPLASS Enterprise Agreement renegotiated and renewed for a further three year term with no increases in cost to councils. No alternative provider in NZ. Media Monitoring services – Competitive procurement process managed by BOPLASS with presentations received from two vendors. Contract with iSentia renewed. Inter-Council Network – Existing contracts renegotiated with some of the ICN suppliers, resulting in improved levels of service and $56,048 annual savings in 2018/19 for this foundation service: Spark Fortigate Firewall Services – renegotiated contract resulting in reduced ongoing costs for this service saving $12,611 per year. Spark GWS Service in Opotiki replaced with Evolution Networks Wireless WAN. Planning work begun in 2018 and completed in early 2019 year. Further improvements to the wireless service undertaken in February 2019. The decommission of the Spark service will result in a saving of $20,000 per year.
Review governance performance and structure to ensure it supports BOPLASS' strategic direction. Perform review of BOPLASS governance. Affirmative feedback received from shareholding councils at least annually.	Achieved	Following direct engagement with shareholders and feedback received a decision was made not to proceed with an independent governance review. The majority of councils advised they were comfortable with the current Board composition and the cost of carrying out an independent governance review would be prohibitive relative to the return in value. Discussions around strategy and governance are held on a continuous basis by the Board. Feedback from councils is received through the Statement of Intent submission process.
Communicate with each shareholding council at appropriate levels. Meeting with each Executive Leadership Team. At least one meeting per year.	Achieved	BOPLASS continues to regularly engage with our constituent councils, senior management and shareholders to ensure opportunities continue to be developed to the benefit of all stakeholders. Meetings were held with each council's Executive Leadership Team. A further four Operations Committee meetings were held during the year with Executive Leadership Team representation and input provided by all shareholding councils.

Ensure current funding model is appropriate. Review BOPLASS expenditure and income and review council contributions and other sources of funding. Performance against budgets reviewed quarterly. Company remains financially viable.	Achieved	The sources of BOPLASS funding and the viability of the funding model are regularly reviewed with financial reporting provided to the BOPLASS Board. Council contributions levied. Contributions received from activities producing savings. Vendor rebates collected. Monthly and quarterly performance reviewed. Financial statements reported and reviewed at Board meetings. Financial position year end 30 June 2019: $5,322 profit.

BOPLASS Ltd

PART TWO – ACCOUNTABILITY STATEMENTS

Building Blocks

BOPLASS Ltd has been built on a number of principles and activities and these are the building blocks of our success.

You will find examples in text boxes scattered through the document.

Statement of Responsibility

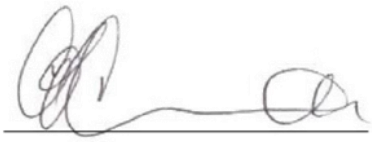
The following pages 27-50 outline the financial statements and notes for year ended 30 June 2020 for BOPLASS Limited.

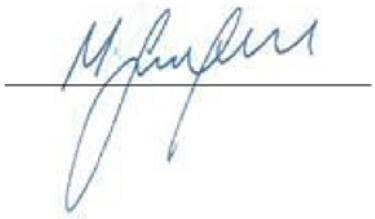
The directors believe that proper accounting records have been kept that enable, with reasonable accuracy, the determination of the financial position of the company and facilitate compliance of the financial statements with the Financial Reporting Act 1993.

The directors consider that they have taken adequate steps to safeguard the assets of the company, and to prevent and detect fraud and other irregularities. Internal control procedures are also considered to be sufficient to provide reasonable assurance as to the integrity and reliability of the financial statements.

The directors are pleased to present the financial statements of BOPLASS Ltd for the twelve months ended 30 June 2020.

For and on behalf of the Board of Directors:

Signed:  Craig O'Connell – Chair Date: 30 November 2020

Signed:  Martin Grenfell – Director Date: 30 November 2020

Audit Report

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

Independent Auditor's Report

To the readers of BOP LASS Limited's financial statements and performance information for the year ended 30 June 2020

The Auditor-General is the auditor of BOP LASS Limited (the company). The Auditor-General has appointed me, Clarence Susan, using the staff and resources of Audit New Zealand, to carry out the audit of the financial statements and performance information of the company on his behalf.

Opinion

We have audited:

- the financial statements of the company on pages 27 to 46 and 49 to 50, that comprise the statement of financial position as at 30 June 2020, the statement of financial performance, and statement of cash flows for the year ended on that date and the notes to the financial statements that include accounting policies and other explanatory information; and
- the performance information of the company on pages 7 to 20.

In our opinion:

- the financial statements of the company on pages 27 to 46 and 49 to 50:
  - present fairly, in all material respects:
    - its financial position as at 30 June 2020; and
    - its financial performance and cash flows for the year then ended; and
  - comply with generally accepted accounting practice in New Zealand in accordance with the Public Benefit Entity Simple Format Reporting – Accrual (Public Sector) Standard; and
- the performance information of the company on pages 7 to 20 presents fairly, in all material respects, the company's actual performance compared against the performance targets and other measures by which performance was judged in relation to the company's objectives for the year ended 30 June 2020.

Our audit was completed on 30 November 2020. This is the date at which our opinion is expressed.

Audit Report Continued

The basis for our opinion is explained below, and we draw attention to the impact of Covid-19 on the company. In addition, we outline the responsibilities of the Board of Directors and our responsibilities relating to the financial statements and the performance information, we comment on other information, and we explain our independence.

Emphasis of matter – Impact of Covid-19

Without modifying our opinion, we draw attention to the disclosures about the impact of Covid-19 on the Company as set out on pages 49-50 to the financial statements.

Basis for our opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the Professional and Ethical Standards and the International Standards on Auditing (New Zealand) issued by the New Zealand Auditing and Assurance Standards Board. Our responsibilities under those standards are further described in the Responsibilities of the auditor section of our report.

We have fulfilled our responsibilities in accordance with the Auditor-General's Auditing Standards.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Board of Directors for the financial statements and the performance information

The Board of Directors is responsible on behalf of the company for preparing financial statements that are fairly presented and that comply with generally accepted accounting practice in New Zealand. The Board of Directors is also responsible for preparing the performance information for the company.

The Board of Directors is responsible for such internal control as it determines is necessary to enable it to prepare financial statements and performance information that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements and the performance information, the Board of Directors is responsible on behalf of the company for assessing the company's ability to continue as a going concern. The Board of Directors is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless the Board of Directors intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

The Board of Directors' responsibilities arise from the Local Government Act 2002.

Audit Report Continued

Responsibilities of the auditor for the audit of the financial statements and the performance information

Our objectives are to obtain reasonable assurance about whether the financial statements and the performance information, as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit carried out in accordance with the Auditor-General's Auditing Standards will always detect a material misstatement when it exists. Misstatements are differences or omissions of amounts or disclosures, and can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of readers, taken on the basis of these financial statements and the performance information.

For the budget information reported in the financial statements and the performance information, our procedures were limited to checking that the information agreed to the company's statement of intent.

We did not evaluate the security and controls over the electronic publication of the financial statements and the performance information.

As part of an audit in accordance with the Auditor-General's Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. Also:

- We identify and assess the risks of material misstatement of the financial statements and the performance information, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- We obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors.
- We evaluate the appropriateness of the reported performance information within the company's framework for reporting its performance.
- We conclude on the appropriateness of the use of the going concern basis of accounting by the Board of Directors and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists we are required to draw attention in our auditor's report to the related disclosures in the financial statements and the performance information or, if such disclosures are

- inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.

- We evaluate the overall presentation, structure and content of the financial statements and the performance information, including the disclosures, and whether the financial statements and the performance information represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Board of Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Our responsibilities arise from the Public Audit Act 2001.

Other Information

The Board of Directors is responsible for the other information. The other information comprises the information included on pages 1 to 6 and 47 to 48, but does not include the financial statements and the performance information, and our auditor's report thereon.

Our opinion on the financial statements and the performance information does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the financial statements and the performance information, our responsibility is to read the other information. In doing so, we consider whether the other information is materially inconsistent with the financial statements and the performance information or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on our work, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Independence

We are independent of the company in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1: International Code of Ethics for Assurance Practitioners issued by the New Zealand Auditing and Assurance Standards Board.

Other than the audit, we have no relationship with, or interests in, the company.

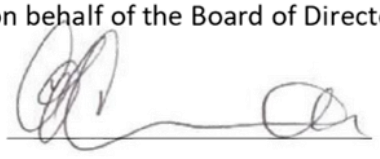
Clarence Susan
Audit New Zealand
On behalf of the Auditor-General
Tauranga, New Zealand

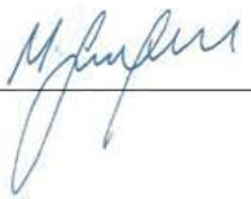
Financial Statements – Statement of Financial Position

STATEMENT OF FINANCIAL POSITION - AS AT 30 JUNE 2020			
BOP LASS LTD	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
ASSETS - CURRENT			
Bank accounts and cash	10	328,672	216,878
Short Term Investments	10	803,090	800,000
Debtors and Other Receivables	11	200,341	126,132
Prepayments	12	34,788	70,127
Total Current Assets		**1,366,891**	**1,213,137**
ASSETS - NON-CURRENT			
Intangible Assets	13	16,893	24,241
Plant and Equipment	14	860	1,383
Total Non-Current Assets		**17,753**	**25,624**
TOTAL ASSETS		**1,384,644**	**1,238,761**
LIABILITIES - CURRENT			
Creditors and Accrued Expenses	15	156,408	120,629
Employee Costs Payable	16	36,101	38,809
Income in Advance	17	1,162,279	1,034,244
Borrowings	18	0	0
Total Current Liabilities		**1,354,788**	**1,193,682**
TOTAL LIABILITIES		**1,354,788**	**1,193,682**
TOTAL ASSETS less TOTAL LIABILITIES		**29,856**	**45,079**
EQUITY			
Accumulated Deficits	19	(69,146)	(53,923)
Share Capital	19	99,002	99,002
TOTAL EQUITY		**29,856**	**45,079**

The notes and Statement of Accounting Policies form part of these financial statements.

For and on behalf of the Board of Directors:

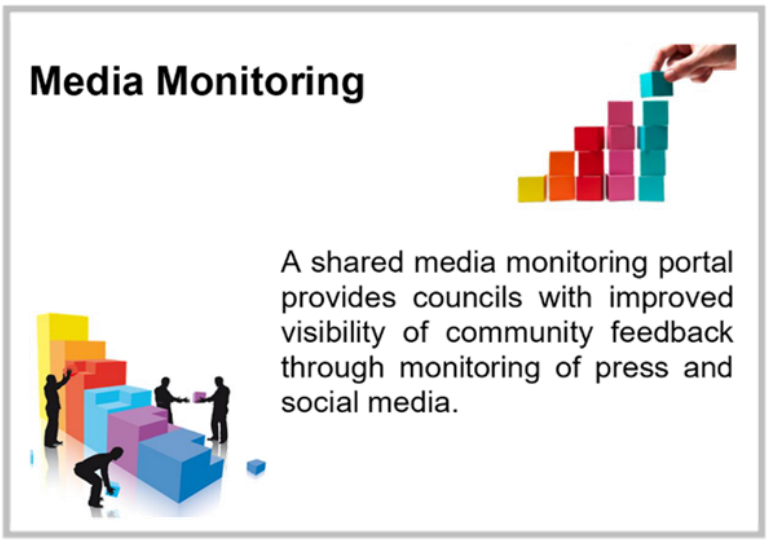
Signed:  Craig O'Connell – Chair Date: 30 November 2020

Signed:  Martin Grenfell – Director Date: 30 November 2020

Financial Statements – Statement of Financial Performance

STATEMENT OF FINANCIAL PERFORMANCE - FOR THE YEAR ENDED 30 JUNE 2020				
BOP LASS LTD	Notes	BOP LASS Ltd		
		2019/20 Actual	2019/20 Budget	2018/19 Actual
REVENUE				
Council Contribution	2	273,511	273,510	273,511
Project Revenue	2	1,099,886	1,196,500	1,061,642
Interest Revenue	3	23,237	17,500	24,690
Other Income (Tax Refund)		8,777	0	0
Total Revenue		**1,405,411**	**1,487,510**	**1,359,843**
EXPENSES				
Depreciation and Amortisation	4	7,870	8,000	9,283
Employee Related Costs	5	274,531	302,000	344,150
Directors Costs	6	16,220	18,000	21,206
Finance Cost	7	0	1,000	793
Other Expenses	8	1,122,013	1,158,510	979,089
Total Expenses		**1,420,634**	**1,487,510**	**1,354,521**
Surplus/(Deficit) before tax		**(15,223)**	**0**	**5,322**
Income Tax Expense/(Benefit)	9	0	0	0
Surplus/(Deficit) after Tax		**(15,223)**	**0**	**5,322**

The notes and Statement of Accounting Policies form part of these financial statements.
Explanations of major variances against budget are provided in note 25.



Financial Statements – Statement of Cashflows

STATEMENT OF CASHFLOWS - FOR THE YEAR ENDED 30 JUNE 2020			
BOP LASS LTD	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
CASHFLOWS FROM OPERATING ACTIVITIES			
Council Contribution		273,511	273,511
Other Revenue		8777	0
Project Revenue		1,155,783	1,185,801
Interest Revenue		23,237	24,690
Tax Paid - RWT (net)		0	0
Goods and Services Tax (net)		19,396	7,987
Total Cash Provided		**1,480,704**	**1,491,989**
Employee Related Costs		(277,240)	(335,130)
Payments to Suppliers		(1,081,524)	(1,082,520)
Interest Paid		0	(794)
Tax Paid - RWT (net)		(7,056)	(8,767)
Goods and Services Tax (net)			(0)
Total Cash Applied		**(1,365,820)**	**(1,427,211)**
NET CASHFLOWS FROM OPERATING ACTIVITIES		**114,883**	**64,778**
CASHFLOWS FROM INVESTING ACTIVITIES			
Acquisition of Investments		(3,090)	(300,000)
Purchase of Plant and Equipment		0	(0)
Purchase of Intangibles		0	(16,283)
Total Investing Cash Applied		**0**	**(316,283)**
NET CASHFLOWS FROM INVESTING ACTIVITIES		**(3,090)**	**(316,283)**
CASHFLOWS FROM FINANCING ACTIVITIES			
Proceeds from Loans		0	0
Repayment of Loans		0	(0)
NET CASHFLOWS FROM FINANCING ACTIVITIES		**0**	**(0)**
NET INCREASE/(DECREASE) IN CASH		**111,794**	**(251,505)**
CASH AT BEGINNING OF THE YEAR		**216,878**	**468,383**
CASH AT END OF THE YEAR	10	**328,672**	**216,878**

The GST component of operating activities reflects the net GST paid and received to and from the Inland Revenue Department. The GST component has been prepared on a net basis, as the gross amounts do not provide meaningful information for financial purposes.

The notes and Statement of Accounting Policies form part of these financial statements.

Entity Information for the Year Ended 30 June 2020

LEGAL NAME

BOP LASS Limited stands for Bay of Plenty Local Authority Shared Services.

TYPE OF ENTITY AND LEGAL BASIS

BOPLASS Ltd is incorporated in New Zealand under the Companies Act 1993.

COMPANY'S PURPOSE

BOPLASS Ltd is based in Tauranga and is a joint venture between nine councils formed to provide shared services.

STRUCTURE OF COMPANY'S OPERATIONS INCLUDING GOVERNANCE ARRANGEMENTS

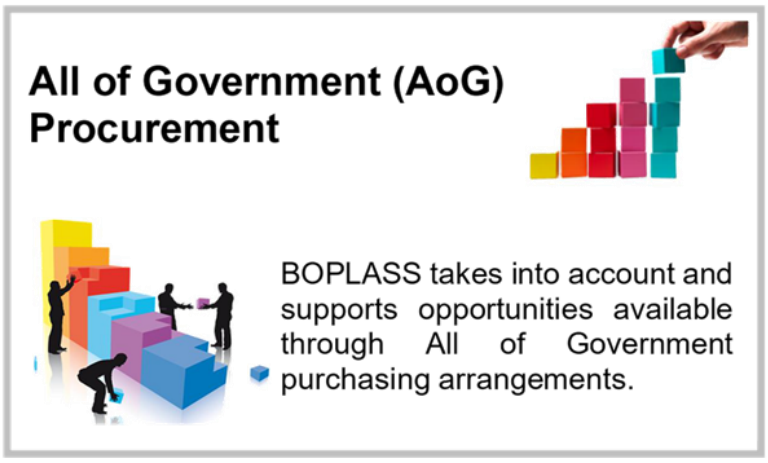
The company is owned and controlled by the nine councils and comprises a Board of ten directors who oversee the governance of the company. A Chief Executive is responsible for the day-to-day operations of the company and reports to the Board, with two other staff supporting the Chief Executive in delivering against the company's objectives. The Board is made up of nine Chief Executives from participating councils and one Independent director. Refer Statutory Disclosure note page 48 for list of councils.

MAIN SOURCE OF THE COMPANY'S CASH AND RESOURCES

Annual operating contribution received from each of the nine councils and project commissions are the main source of funding.

OUTPUTS

As per the Statement of Intent and Performance.



Statement of Accounting Policies

Statement of Accounting Policies for the Year Ended 30 June 2020

ACCOUNTING POLICIES APPLIED:

BASIS OF PREPARATION

The Board has elected to apply PBE SFR-A (PS) *Public Benefit Entity Simple Format Reporting – Accrual (Public Sector)* on the basis that the company does not have public accountability (as defined) and has total annual expenses less than $2 million.

All transactions in the financial statements are reported using the accrual basis of accounting. The financial statements are presented in New Zealand dollars ($) and all values are rounded to the nearest dollar. The functional currency of BOPLASS Ltd is New Zealand dollars.

The financial statements are prepared on the assumption that the company will continue to operate in the foreseeable future.

SIGNIFICANT ACCOUNTING POLICIES

There have been no changes to accounting policies during the reporting period.

GOODS AND SERVICES TAX

The company is registered for GST. All amounts in the financial Statements are recorded exclusive of GST, except for debtors and creditors which are stated inclusive of GST.

REVENUE RECOGNITION

Revenue is measured at the fair value of the consideration received or receivable.

Contributions received from the nine shareholder councils are BOPLASS Limited's primary source of funding for the 12 months ended 30 June 2020.

Council contributions are recognised as revenue when they become receivable unless there is an obligation to return the funds if conditions of the contributions are not met. No such obligation is attached to the council contributions received for the twelve months ended 30 June 2020.

Project revenue is recognised when the sale of goods or services is sold to the customer.

Interest revenue is recorded as it is earned during the year.

EMPLOYEE RELATED COSTS

Wages, salaries, and annual leave are recorded as an expense as staff provide services and become entitled to wages, salaries and leave entitlements.

Performance payments are recorded when the employee is notified that the payment has been granted.

Superannuation contributions are recorded as an expense as staff provide services.

ADMINISTRATION, OVERHEADS AND PROJECT EXPENDITURE COSTS

These are expensed when the related service has been received.

LEASE EXPENSES

Lease payments are recognised as an expense on a straight-line basis over the lease term.

BANK ACCOUNTS AND CASH

Bank accounts and cash comprise cash on hand, cheque or savings accounts, and deposits held at call with banks.

DEBTORS AND OTHER RECEIVABLES

Debtors are initially recorded at the amount owed. When it is likely the amount owed (or some portion) will not be collected, a provision for impairment is recognised and the loss is recorded as a bad debt expense.

PLANT AND EQUIPMENT

Plant and equipment is recorded at cost, less accumulated depreciation and impairment losses.

For an asset to be sold, the asset is impaired if the market price for an equivalent asset falls below its carrying amount. For an asset to be used by the company, the asset is impaired if the value to the company in using the asset falls below the carrying amount of the asset.

Depreciation is provided on a diminishing value basis over the estimated useful life, at the same rate as is allowed by the Income Tax Act 1994.

The useful lives for associated depreciation rates of other assets have been estimated using the diminishing value basis as follows:

Office equipment	5 years	40%
Computer equipment	4 years	50%
Mobile Phone	3 years	67%

INTANGIBLE ASSETS

Acquired computer software licenses are capitalised on the basis of the costs incurred to acquire and bring to use the specific software. Costs associated with maintaining computer software are recognised as an expense when incurred.

The carrying value of an intangible asset with a finite life is amortised on a diminishing value basis over its estimated useful life, at the same rate as is allowed by the Income Tax Act 1994. This charge is recognised as an expense.

The useful lives for associated amortisation rates of major classes of intangible assets have been estimated using the diminishing basis as follows:

2020 Computer Software	4 years	50%
2019 Computer Software	4 years	50%

CREDITORS AND ACCRUED EXPENSES

Creditors and accrued expenses are measured at the amount owed.

EMPLOYEE COSTS PAYABLE

A liability for employee costs payable is recognised when an employee has earned the entitlement.

These include salaries and wages accrued up to balance date and annual leave earned but not yet taken at balance date. A liability and expense for long service leave and retirement gratuities is recognised when the entitlement becomes available to the employee.

INTEREST BEARING LOANS AND BORROWINGS

Loans & Borrowings are recognised at the amount borrowed from the lender.

Interest costs and interest accrued are recognised as an expense when incurred.

INCOME TAX

Tax expense is calculated using the taxes payable method. As a result, no allowance is made for deferred tax. Tax expense includes the current tax liability and adjustments to prior year tax liabilities.

BUDGET FIGURES

The budget figures are derived from the Statement of Intent as approved by the Board at the beginning of the financial year. The budget figures have been prepared in accordance with Tier 3 standards, using accounting policies that are consistent with those adopted by the Board in preparing these financial statements.

COMMITMENT AND CONTINGENT LIABILITIES

Commitments and contingencies are disclosed exclusive of GST.

EQUITY

Equity is measured by the value of total assets less total liabilities.

TIER 3 PBE ACCOUNTING STANDARDS APPLIED

BOPLASS Ltd has applied Tier 3 Accounting Standards in preparing its Financial Statements to:

- Property, plant and equipment to show intangible assets separate from property, plant & equipment.
- Debtors and prepayments reported separately.

Notes to Financial Statements

NOTE 2: COUNCIL CONTRIBUTION / PROJECT REVENUE

	Notes	BOP LASS Ltd		
		2019/20 Actual	2019/20 Budget	2018/19 Actual
Core Revenue				
Council Contribution		273,511	273,510	273,511
		273,511	**273,510**	**273,511**
Project Revenue				
Rebates	*	8,461	6,000	7,850
Aerial Photography Revenue	**	332,436	300,000	205,510
Video Conferencing Revenue	***	31,753	30,500	34,140
Revenue - ICN	****	109,898	135,000	116,783
Recoveries	*****	596,937	650,000	561,012
Sales of Service Revenue	******	0	0	57,947
Collaboration Portal Revenue	*******	20,400	75,000	78,400
		1,099,885	**1,196,500**	**1,061,642**
TOTAL CORE AND PROJECT REVENUE		**1,373,396**	**1,470,010**	**1,335,153**

* Rebates for Services contracted by BOPLASS Ltd are received from CSG and NZ Post Ltd.

** Aerial Photography revenue is offset by Aerial Photography expenditure paid by BOPLASS Ltd on behalf of the councils. Refer to note 8.

*** Video Conferencing Revenue is offset by Video Conferencing expenditure.

**** ICN Revenue is offset by ICN expenditure.

***** Recovery Revenue is offset by recovery expenditure refer to note 8. This is the recovery of BOPLASS project or procurement costs incurred on behalf of the participating councils.

****** Sales of Service Revenue no longer applies.

******* Collaboration Portal Revenue is offset by Collaboration Portal expenditure. The Budget variation occurred as the Budget was set before the number of participating LASS and councils was confirmed.

NOTE 3: INTEREST REVENUE

	Notes	BOP LASS Ltd		
		2019/20 Actual	2019/20 Budget	2018/19 Actual
Core Revenue				
Interest Revenue - Current account	*	143	1,000	559
Project Revenue				
Interest Revenue - Aerial Trust account	*	23,094	16,500	24,131
TOTAL INTEREST REVENUE		**23,237**	**17,500**	**24,690**

* Bank interest on BOPLASS Ltd current account and Aerial Photography Trust account.

The Budget variation occurred on the current account as the interest rate declined significantly. Councils now have an agreement to invest monies at a higher interest rate. Refer Note 10.

NOTE 4: DEPRECIATION AND AMORTISATION EXPENSE

	Notes	BOP LASS Ltd		
		2019/20 Actual	2019/20 Budget	2018/19 Actual
Core Expenditure				
Intangibles	*	7,347	8,000	7,875
Plant and Equipment	**	524	0	1,408
TOTAL DEPRECIATION AND AMORTISATION EXPENSE		**7,871**	**8,000**	**9,282**

* Intangibles refer to note 13.

** Plant and Equipment refer to note 14.

NOTE 5: EMPLOYEE RELATED COSTS

	Notes	BOP LASS Ltd		
		2019/20 Actual	2019/20 Budget	2018/19 Actual
Core Expenditure				
Salary and Wages		242,822	265,000	293,860
Superannuation	*	9,740	10,000	20,481
Direct Personnel Overheads	**	21,969	27,000	29,809
TOTAL EMPLOYEE RELATED COSTS		**274,531**	**302,000**	**344,150**

* Superannuation includes employer contributions to Kiwisaver.

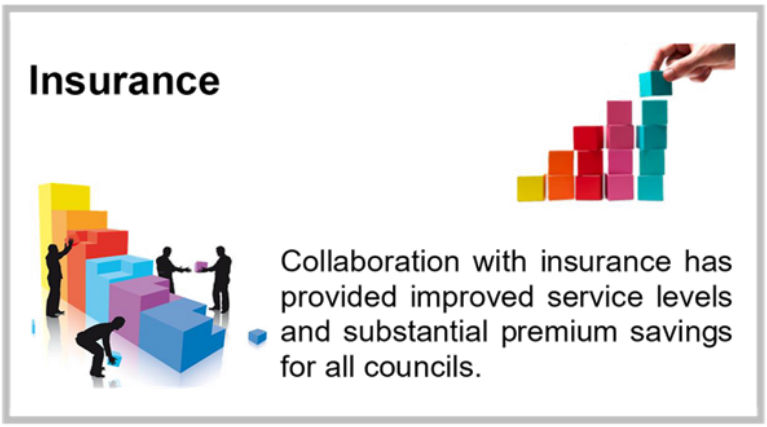
** Direct Personnel Overheads include ACC, Fringe Benefit Tax, staff training costs and other staff support costs.

NOTE 6: DIRECTORS COSTS

	Notes	BOP LASS Ltd		
		2019/20 Actual	2019/20 Budget	2018/19 Actual
Core Expenditure				
Directors Costs (Fees & Travel)	*	16,220	18,000	15,000
Directors Costs	**	0	0	6,206
TOTAL DIRECTORS COSTS		**16,220**	**18,000**	**21,206**

* Craig O'Connell is the only independent paid Director, commenced February 2015. The other nine Directors are the Chief Executives of participating Councils and do not receive any remuneration from BOPLASS.

** Directors Costs have been combined to one code for fees and travel.



NOTE 7: FINANCE COST

	Notes	BOP LASS Ltd		
		2019/20 Actual	2019/20 Budget	2018/19 Actual
Core Expenditure				
Interest on Borrowings	*	0	1,000	793
TOTAL FINANCE COST		**0**	**1,000**	**793**

* Interest on Tauranga City Council loan refer to note 18.

NOTE 8: OTHER EXPENSES

	Notes	BOP LASS Ltd		
		2019/20 Actual	2019/20 Budget	2018/19 Actual
Core Expenditure				
Audit Fees	*	19,981	17,500	16,592
Administration Expenses	**	17,727	14,400	28,892
Consultancy	***	3,700	4,500	7,100
General Costs	****	182	9,900	5,743
Insurance		8,837	8,500	8,425
Loss on Disposal of Asset		0	0	0
		50,427	**54,800**	**66,752**
Project Expenditure				
Aerial Photography	*	332,436	300,000	205,510
Video Conferencing	**	30,959	28,610	35,904
Inter Council Network (ICN)	**	102,648	129,100	104,285
Recoveries	***	579,029	620,000	531,930
Collaboration Portal Opex	****	26,514	26,000	34,707
		1,071,586	**1,103,710**	**912,336**
TOTAL OTHER EXPENSES		**1,122,013**	**1,158,510**	**979,088**

Core

* Audit Fees for 2019/20 are $19,981, includes accrual $16,991

** Administration Expenses

*** Consultancy includes tax advice for 2019/20

**** Accommodation & Travel, Bank Fees, Conferences, General Expenses, Health & Safety, Legal, Subscriptions

Project

* BOPLASS Ltd has a contract for aerial photography on behalf of the councils. This expenditure is offset from the revenue received from the councils. BOPLASS Ltd is acting on behalf of the councils.

** ICN Expenses. This expenditure is offset from the revenue received from the councils. BOPLASS Ltd is acting on behalf of the councils.

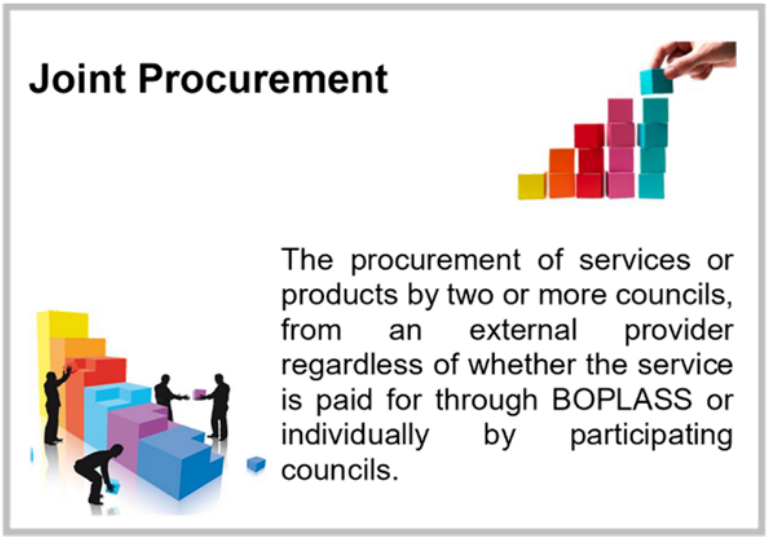
*** Recoveries - This expenditure is offset from the revenue received from the councils for project work.

**** Collaboration Portal Opex - to assist in accelerating growth of shared service strategies and projects throughout local government in New Zealand by increasing visibility of councils' opportunities to collaborate.

NOTE 9: INCOME TAX EXPENSE

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Components of tax expense			
Current Tax Expense		0	0
Adjustments to current tax in prior years		0	0
Tax Expense		0	0
INCOME TAX EXPENSE		**0**	**0**
Relationship between tax expense and accounting profit			
Net surplus (deficit) before Taxation*		(15,223)	5,322
Tax calculation @ 28%		(4,262)	1,490
Plus/(Less) Taxation effect of:		0	0
Non-deductible Expenditure		169,838	134,414
Imputation credit adjustment		0	0
Non-taxable (income)/expenditure		(169,665)	(134,126)
Prior Period Adjustment		0	0
Group loss offset		0	0
Tax Losses not recognised		0	0
Deferred tax adjustment		4,089	(1,779)
TOTAL INCOME TAX EXPENSE		**(0)**	**(0)**

Tax losses for 2020: ($34,645), 2019: ($11,898) are available to carry forward and offset against any future taxable income.



NOTE 10: BANK ACCOUNTS, CASH AND OTHER FINANCIAL ASSETS

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Cash at Bank - Current account		124,388	40,988
Cash at Bank - Aerial Trust account		204,284	175,890
Term Deposit 182 days @ 2.70% Maturing 13 July 2020		303,090	300,000
Term Deposit 180 days @ 2.75% Maturing 12 August 2020		250,000	250,000
Term Deposit 180 days @ 2.70% Maturing 08 September 2020		250,000	250,000
TOTAL BANK ACCOUNTS AND CASH		**1,131,762**	**1,016,878**

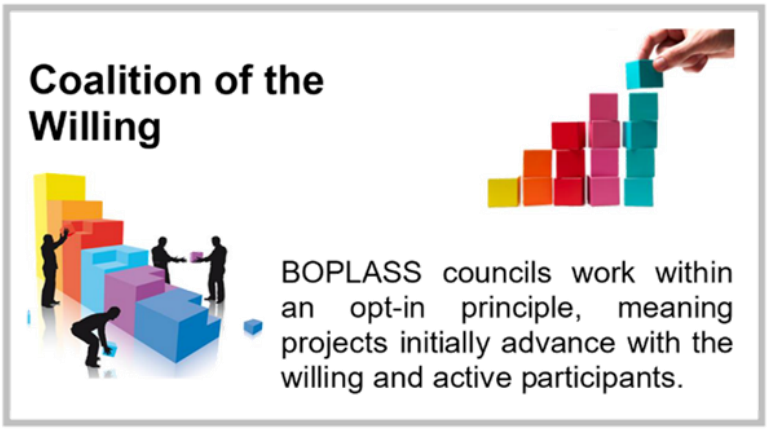
NOTE 11: DEBTORS AND OTHER RECEIVABLES

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Debtors – Other		148,367	73,474
Goods and Services		0	4,985
Accrued Revenue		24,397	27,152
Withholding Tax		27,577	20,521
TOTAL DEBTORS AND OTHER RECEIVABLES		**200,341**	**126,132**

Debtors are non-interest bearing and receipt is normally 30-day terms. Therefore, the carrying amount of debtors approximates their fair value.

NOTE 12: PREPAYMENTS

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Under 1 Year		34,788	70,127
TOTAL PREPAYMENTS		**34,788**	**70,127**



NOTE 13: INTANGIBLE ASSETS

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Computer Software			
Cost			
Cost at beginning of Year		79,174	62,891
Current Year Additions		0	16,283
Current Year Disposals		0	0
Cost Balance at Year End		**79,174**	**79,174**
Accumulated Amortisation and Impairment			
Cost at beginning of Year		(54,934)	(47,059)
Amortisation Expense		(7,347)	(7,875)
Impairment Losses			
Accumulated Amortisation and Impairment Balance at Year End		**(62,281)**	**(54,934)**
Carrying Amounts			
Cost at beginning of Year		24,240	15,832
Carrying Amount at Year End		**16,893**	**24,240**

Amortisation Expense was at varying rates between 15% to 60%.

No impairment losses have been recognised for intangible assets.

NOTE 14: PLANT AND EQUIPMENT

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Office and Computer Equipment			
Cost			
Cost at beginning of Year		3,995	6,484
Current Year Additions		0	0
Current Year Disposals		0	(2,489)
Cost Balance at Year End		**3,995**	**3,995**
Accumulated Depreciation and Impairment			
Cost at beginning of Year		(2,612)	(1,204)
Depreciation Expense		(524)	(1,408)
Impairment Losses		0	0
Loss on Disposal of Asset		0	0
Accumulated Depreciation and Impairment Balance at Year End		**(3,136)**	**(2,612)**
Carrying Amounts			
Cost at beginning of Year		1,383	3,995
Carrying Amount at Year End		**859**	**1,383**

Office equipment has been depreciated over its life (5 years).
Computer equipment has been depreciated over its life (4 years). Mobile Phone (3 years).

NOTE 15: CREDITORS AND ACCRUED EXPENSES

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
ANZ Business Credit Card		0	4,195
Creditors		121,392	57,298
Accrued Expenses	*	20,606	19,592
Goods and Services Tax Payable		14,410	0
Retentions		0	39,544
TOTAL CREDITORS AND ACCRUED EXPENSES		**156,408**	**120,629**

ANZ Business Credit Card facilities were arranged primarily to pay international accounts for software to reduce the fees charged and to improve expense processes and reporting.

Creditors are non-interest bearing and are normally settled on 30-day terms. Therefore, the carrying value of creditors and other payables approximates their fair value.

* Accrued Expenses relates to Audit Fees of $16,991 and Tax Advice that have been accrued for the 2019/20 financial year.

NOTE 16: EMPLOYEE COSTS PAYABLE

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Accrued Salaries and Wages		7,735	10,058
Annual Leave		18,817	16,896
PAYE		9,549	11,855
TOTAL EMPLOYEE COSTS PAYABLE		**36,101**	**38,809**

NOTE 17: INCOME IN ADVANCE

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Income in Advance	*	1,162,279	1,034,244
TOTAL INCOME IN ADVANCE		**1,162,279**	**1,034,244**

* Income in advance that relates to 2019/20 financial year:
$953,693 is for aerial photography;
$58,544 is for the Geospatial Web project;
$49,999 is for Proof of Concept budget for OpsCom Projects;
$25,877 is for N3 Group Membership 1 July 2020 to 30 June 2021;
$5,000 CSG Technology Rebates 2021 per annum;
$9,793 PMCA Licence;
$59,372 Solid Waste

NOTE 18: BORROWINGS

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Maturing in Under 1 Year		0	0
TOTAL BORROWINGS		**0**	**0**

BOPLASS Ltd has a reciprocal borrowing arrangement with Tauranga City Council which allows for the borrowing of funds and placement of excess funds. The current loan balance as at 30 June 2020 is $NIL. Interest is accrued during each interest period.
This loan facility is still available to BOPLASS Ltd.

Interest is calculated at current market rates. The loan from Tauranga City Council is unsecured.

NOTE 19: EQUITY

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Share Capital			
Balance at beginning of Year		99,002	99,002
Fully Paid up Shares		0	0
Balance at Year End		**99,002**	**99,002**
Accumulated Surpluses/(Deficit)			
Balance at beginning of Year		(53,923)	(59,245)
Surplus/(Deficit) after Taxation		(15,223)	5,322
Balance at Year End		**(69,146)**	**(53,923)**

Share Capital - As at 30 June 2020, share capital comprised of thirty-one Ordinary Shares and twenty-two Non-Voting Shares.

The holders of the ordinary shares are entitled to receive dividends as declared from time to time, are entitled to one vote per share at meetings of the Company and rank equally with regard to the Company's residual assets.

Dividends - No dividends have been paid or are proposed by the Company.

NOTE 20: CONTINGENCIES

BOPLASS Ltd have no contingencies at year end and that there were no contingencies for prior year.

NOTE 21: EVENTS OCCURING AFTER BALANCE DAY

No events have occurred since balance date for BOPLASS Ltd.

NOTE 22: STATEMENT OF COMMITMENTS

	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Capital Commitments		0	0
TOTAL CAPITAL COMMITMENTS		**0**	**0**

This statement represents extraordinary or exceptionally large commitments for that type of expenditure within the normal course of business, which have been contractually entered into. As at balance date, BOPLASS Ltd has no large commitments of this nature.

BOPLASS Ltd has a contractual agreement with AAM Limited to provide aerial photos for the councils. This is treated as an operational expense in the BOPLASS Ltd accounts.

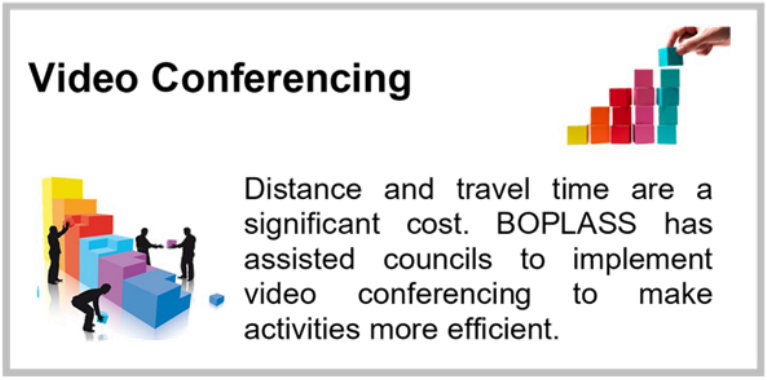
Operating Leases as Lessee

BOPLASS Ltd leased an ultrafast broadband network to enable the establishment of the Inter Council Network. An advance payment of $250,000 was paid by BOPLASS Ltd in 2010 for the first three years of a lease contract. The lease had a term of ten years with the right of withdrawal after three years. The lease expired 1 March 2020. BOPLASS Ltd did not have an option to purchase the leased broadband network at the expiry of the lease period. The service is now provided through agreements with multiple service providers.

OPERATING LEASES AS LESSEE	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Not later than one year		0	33,008
Later than one year and not later than five years		0	0
Later than five years		0	0
TOTAL OPERATING LEASES AS LESSEE		**0**	**33,008**

The expense of $102,648 for the Inter Council Network is recognised in the Statement of Financial Performance refer to note 8. Participating councils are invoiced by BOPLASS Ltd on a quarterly basis to recover the costs of the Inter Council Network. The pricing is reviewable not less than annually and adjustments are to be made for market trends and for the number of councils participating.

RECOVERY OF OPERATING LEASES PAYMENTS FROM PARTICIPATING COUNCILS	Notes	BOP LASS Ltd	
		2019/20 Actual	2018/19 Actual
Not later than one year		0	33,008
Later than one year and not later than five years		0	0
Later than five years		0	0
TOTAL OPERATING LEASES AS LESSOR		**0**	**33,008**



NOTE 23: RELATED-PARTY TRANSACTIONS

Related-party disclosures have not been made for transactions with related parties that are within a normal supplier or client / recipient relationship on terms and conditions no more or less favourable than those that it is reasonable to expect the company would have adopted in dealing with the party at arm's length in the same circumstances.

Related party required to be disclosed

Tauranga City Council provided accounting services to BOPLASS Ltd during the financial year to 30 June 2020 free of charge. An estimated value of the accounting services provided for the year is $10,000.

NOTE 24: STATEMENT OF PERFORMANCE AGAINST STATEMENT OF INTENT

The Equity Ratio is a good indicator of the level of leverage used by a company. The Equity Ratio measures the proportion of the total assets that are financed by stockholders and not creditors.

The calculation of equity ratio is:

2020: 168% (2019: 176%)

NOTE 25: EXPLANATIONS OF MAJOR VARIANCES AGAINST BUDGET

BOP LASS Ltd	
Statement of Financial Performance	**Variance against Budget**
Aerial Photography Revenue and Expenditure (Note 2)	Due to favourable flying conditions the Aerial Photography Programme was able to progress more quickly than anticipated.
Collaboration Portal (Note 2)	Collaboration Portal revenue is less than budget as Portal membership has not increased to expected levels due to limited marketing being able to be undertaken.
ICN Revenue and Expenditure (Note 2)	ICN income and expenditure reflect the reduction in costs through ongoing negotiation with BOPLASS suppliers. Reductions in the expense and revenue remained proportional.
Recoveries and Projects – Recoveries (Note 2)	Project timing is often impacted by reprioritisation of workstreams and effects the Project Recoveries and Expenditure. Both the expense and revenue remained proportional.
Interest Revenue (Note 3)	Reducing interest rates have had a significant impact on revenue. Some funds moved to term deposits to increase revenue from interest in the low interest rate environment.
Administration (Note 8)	Increases in operational costs incurred with BOPLASS software and administration overheads.

NOTE 26: BOPLASS CONTRACTUAL OFFSETTING REVENUE & EXPENDITURE TRANSACTIONS

	BOP LASS Ltd 2019/20			
	Revenue	Expenditure	Net Operating Surplus/(Deficit)	Explanation
Core				
Council Contribution	273,511	0	273511	BOPLASS Ltd receives funds from nine councils to fund administrative costs not related to projects.
Interest Revenue	143	0	143	Refer Note 3.
Sales of Service	0	0	0	Sales of Service no longer applies.
Other Income – Tax Refund	8,778	0	8,778	Tax Refund received.
Depreciation & Amortisation	0	7,871	(7,871)	Refer to note 4.
Salary and Wages	0	242,800	(242,800)	Refer to note 5.
Superannuation	0	9,740	(9,740)	Refer to note 5.
Direct Personnel Overheads	0	21,969	(21,969)	Refer to note 5.
Directors Fees & Costs	0	16,220	(16,220)	Refer to note 6.
Interest on Borrowings	0	0	0	Interest paid to TCC for general loan.
Administration Expenses	0	17,727	(17,727)	Refer to note 8.
Audit Fees	0	17,332	(17,332)	Refer to note 8.
Consultancy	0	3,700	(3,700)	Refer to note 8.
Insurance	0	8,837	(8,837)	Refer to note 8.
General	0	2,853	(2,853)	Refer to note 8.
Total	**282,432**	**349,049**	**(66,617)**	
Projects				
Aerial Photography	332,436	332,436	0	Participating councils are invoiced by BOPLASS Ltd and AAM Ltd is paid as percentages of the work on the project are completed.
Interest Revenue related to Aerial Photography	23,094	0	23,094	Bank interest received on the BOPLASS Ltd Aerial Photography Trust account. Refer to Note 3.
Canon Video Conferencing	31,753	30,959	794	Councils pay BOPLASS Ltd an amount charged by Canon plus an administrative fee for BOPLASS Ltd maintaining a service and maintenance contract on behalf of the councils.
Inter Council Network	109,898	102,648	7,250	Participating councils are invoiced by BOPLASS Ltd on a quarterly basis to recover the cost for the Inter Council Regional Network Platform. ICN revenue includes recovery of other operating expenditure - ICN, interest on borrowings - ICN loan and BOPLASS Ltd administration fees.
ESRI Enterprise Licence (Recoveries)	374,500	370,800	3,700	BOPLASS charges an administration fee for management of the software purchase and recoveries.
Other Recoveries	222,436	208,229	14,208	Includes recovery and administration fees for ad-hoc projects.

.../ continued

Rebates	8,462	0	8,462	Rebates earned by BOPLASS from CSG Technology and NZ Post Ltd.
Collaboration Portal	20,400	26,513	(6,114)	The Portal is to assist in accelerating growth of shared service strategies and projects throughout local government in New Zealand by increasing visibility of councils' opportunities to collaborate. Membership Revenue lower than expected.
Total	**1,122,279**	**1,071,585**	**51,394**	

Overall Total	**1,405,411**	**1,420,634**	**(15,223)**	

BOP LASS Ltd 2018/19

	BOP LASS Ltd 2018/19		
	Revenue	**Expenditure**	**Net Operating Surplus/(Deficit)**
Core			
Council Contribution	273,511	0	273,511
Interest Revenue	558	0	558
Sales of Service	57,947	0	57,947
Depreciation & Amortisation	0	9,282	(9,282)
Salary and Wages	0	293,860	(293,860)
Superannuation	0	20,481	(20,481)
Direct Personnel Overheads	0	29,809	(29,809)
Directors Fees & Costs	0	21,206	(21,206)
Interest on Borrowings	0	793	(793)
Administration Expenses	0	28,892	(28,892)
Audit Fees	0	16,592	(16,592)
Consultancy	0	7,100	(7,100)
Insurance	0	8,425	(8,425)
General	0	5,745	(5,745)
Total	**332,016**	**442,185**	**(110,169)**
Projects			
Aerial Photography	205,510	205,510	0
Interest Revenue related to Aerial Photography	24,132	0	24,132
Canon Video Conferencing	34,140	35,904	(1,764)
Inter Council Network	116,783	104,285	12,498
ESRI Enterprise Licence (Recoveries)	374,500	370,800	3,700
Other Recoveries	186,512	161,130	25,382
Rebates	7,850	0	7,850
Collaboration Portal	78,400	34,707	43,693
Total	**1,027,827**	**912,336**	**115,491**

Overall Total	**1,359,843**	**1,354,521**	**5,322**

Statutory Disclosures
as per section 211 (1) of the Companies Act (1993)

NATURE OF BUSINESS

There has been no change in the nature of the business of the company during the year.

DIRECTORS APPOINTED

Under the Shareholder Agreement directors are appointed by the constituent councils. Directors and their dates of appointment are as follows:

Independent director	Craig O'Connell	26 February 2015 Chair from 16 March 2016
Kawerau District Council	Russell George	14 January 2008
Bay of Plenty Regional Council	Fiona McTavish	30 June 2018
Western Bay of Plenty District Council	Miriam Taris	1 July 2014
Rotorua Lakes Council	Geoff Williams	1 July 2013
Whakatane District Council	Martin Grenfell Stephanie O'Sullivan	26 September 2011 until 31 August 2018 19 November 2018
Tauranga City Council	Garry Poole Martin Grenfell	26 April 2013 until 31 August 2018 3 September 2018
Taupo District Council	Gareth Green	26 July 2016
Gisborne District Council	Nedine Thatcher-Swann	13 March 2017
Opotiki District Council	Aileen Lawrie	10 August 2010

INTEREST REGISTER

There have been no disclosures of self-interest during the period.

DIRECTORS REMUNERATION

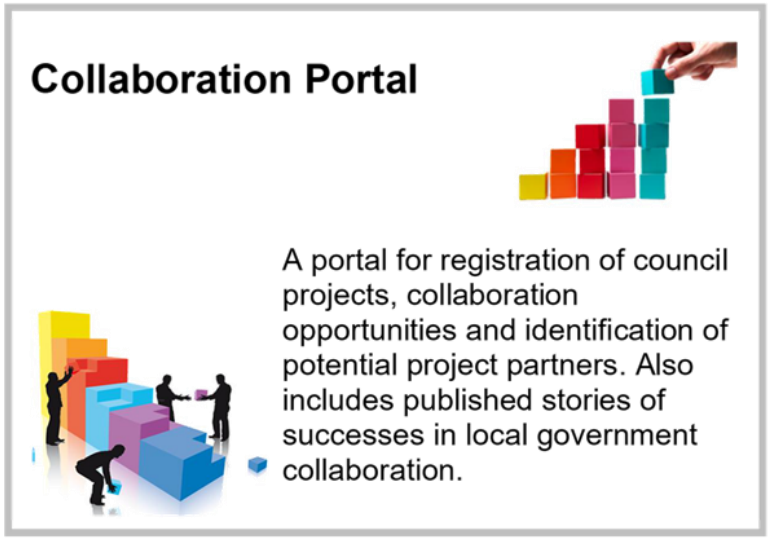
In February 2015 the Board appointed an independent director. The independent director receives remuneration and is reimbursed for related expenses. No remuneration had been paid to other directors.

DONATIONS

There were no donations made by the company during the period.

AUDIT FEES

The actual audit fees for the financial year are $19,981. The amount of $19,981 has been accrued for audit fees for BOPLASS Ltd and this is what is shown in the Statement of Financial Performance.



Additional Disclosures
Impact of COVID-19

BACKGROUND

Given the current environment caused by the impact of COVID-19, many local government organisations face an unprecedented level of uncertainty about the economy, future revenue and asset and liability values. We have remained cognisant of this potential impact on both BOPLASS and our shareholding councils in the preparation of the BOPLASS financial statements.

We have taken a number of measures to monitor and mitigate the effects of COVID-19, such as health and safety measures for our people (e.g. social distancing and working from home) and continuing to engage with our suppliers and our constituent councils through video conferencing.

The impact on our business and results has not been significant and, based upon our experience to date, we expect this to remain the case. As we operate predominately in the delivery of back of office services, during COVID-19 we have found increased demand for some of our collaborative solutions and we expect this to continue.

ASSUMPTIONS

While there is always a possibility of some form of commercial implication for BOPLASS, the risk is considered to be very low as the company remains focused on delivering cost-savings and collective benefits to the councils – services of key importance to our shareholders.

Despite the impact of COVID-19 on much of the New Zealand economy, there has been no change in the nature or capacity of the company's business during the 2019-20 financial year and we don't expect this to change in the future. The company has remained on target with the delivery of all projects, with BOPLASS staff able to continue to operate effectively while working remotely during the various government imposed alert levels.

During and after the lockdown periods BOPLASS was able to continue with all financial reporting and reporting against performance indicators. Governance meetings were held, and regular engagement continued with shareholding councils.

The BOPLASS financial statements have been prepared with the judgement and assumption that COVID-19 has not, and will not, have an adverse impact on the organisation's workstreams or the level of engagement from our shareholding councils. Therefore, when preparing the financial

statements there has been no material adjustments made to the carrying amounts of assets and liabilities within the current or future financial years.

- BOPLASS has minimal assets and the value of those assets will not be impacted by COVID-19.
- The has been no impact from COVID-19 on the company's liquidity and we don't expect there to be future change.
- Project revenue is generated directly by councils' participation in collective contracts or projects. The core BOPLASS principle remains in place that the company will not enter into supplier contracts or commitments without first gaining agreement and financial commitment from participating councils.
- Letters of Support have been provided to BOPLASS by our shareholding councils, providing financial surety for the current and future financial year.
- The level of business for BOPLASS will continue as forecast and may, in some circumstances, create further opportunities.
- BOPLASS current and future performance targets will not be adjusted as a result of COVID-19.

Based on the circumstances described above, the financial statements have been prepared on the assumption that any impacts on BOPLASS from COVID-19 are minimal and the company will continue to operate as a going concern.

We will continue to follow the various government policies and advice, while at the same time doing our utmost to continue our operations in the best and safest way possible without jeopardising the health or wellbeing of our staff.

9.4 RAPID NUMBERING - OHAUITI ROAD

File Number: **A3972324**

Author: **Marion Dowd, Chief Information Officer**

Authoriser: **Kumaren Perumal, Group Manager Finance and Technology Services**

EXECUTIVE SUMMARY

At the Performance and Monitoring Committee (the Committee) meeting held on 24 November 2020, Mr Keith Wisnesky, a member of the public who spoke in public forum and is a resident of Ohauiti Road, requested confirmation from Council that the method of calculating street numbers for Ohauiti Road had been applied correctly. This was supported by the members of the Committee. The purpose of this report is to demonstrate the numbering process used, known as 'Rural Address Property Identification' (RAPID).

RECOMMENDATION

That the Chief Information Officer's report dated 2 February 2021 titled 'RAPID Numbering – Ohauiti Road' be received.

BACKGROUND

1. The process for measuring and issuing Rural Address Property Identification (RAPID) numbers is as follows:

   - Starting at the beginning of the road, we "click" along the road centre line, continuing until we reach the middle of the driveway that requires a number. To check accuracy, previously allocated addresses along the road are also checked.
   - As per the Australian/New Zealand Standard for Rural and urban addressing (AS/NZS 4819:2003), even numbers are allocated on the right-hand side of the road and odd on the left.
   - Below is an example of the method used for measuring and allocating RAPID numbers.
   - The property at point "B" requires a RAPID number.

- Starting at point “A” (the intersection at the beginning of the road) and clicking along the centreline to the centre of the driveway at point “B”, the measurement calculates the distance as 146.23.

2. For the purpose of numbering, the first two numbers are used, in this case 14. As this property is on the right-hand side of the road, 14 would be allocated. If the property was on the left-hand side, either 13 or 15 would be issued, whichever is more suitable.

3. Subsequent to the Committee meeting, Mr Wisnesky visited Council on 27 November 2020, and his concerns and the method of measuring were discussed, and the issue was resolved.

4. Council staff have reviewed the process for digitally numbering rural properties and are satisfied it meets the Australian/New Zealand Standards Rural and Urban Addressing AS/NZS 4819-2011.

9.5 WESTERN BAY MUSEUM

File Number: **A3965687**

Author: **David Pearce, Community Manager**

Authoriser: **Gary Allis, Deputy Chief Executive**

EXECUTIVE SUMMARY

The purpose of this report is to inform Elected Members about the Western Bay Museum's ten-year strategic plan, and that it be referred as a submission to the Long Term Plan, with a focus on the employment of a Collections Curator and the acquiring of suitable storage and workspace facilities.

RECOMMENDATION

1. That the Community Manager's report dated 2 February 2021, titled 'Western Bay Museum' be received.
2. That the report relates to an issue that is considered to be of low significance in terms of Council's Significance and Engagement Policy.
3. That the Western Bay Museum Strategic Plan, as attached, be referred as a submission to the Long Term Plan.

BACKGROUND

Council provides funding to the Western Bay Museum to the value of $70,000 per annum, through a Service Delivery contract. Council provides 37% of the Museums operational funding. The remainder, generated by the Museum, consists of sponsorship, donations, activities, grants and exhibition funding.

The Western Bay Museum continues to meet or exceed their targets, managing a professional Museum for local residents and visitors to the region.

The Western Bay Museum, in Katikati, is the only nearby Museum for Western Bay residents and visitors, with no Museum in Tauranga and the Rotorua Museum currently shut for building repairs.

The Western Bay Museum's Development Plan, over the next 10 years, aims to:

- Employ a Museum qualified Collections Curator, to manage the collection, within the first year;
- Construct a purpose built storage facility within the first three years;
- Return locally significant Taonga and European artefacts;
- Construct an extension to the Museum to display Maori history and artefacts;
- Create a strong focus on Te Puke school visits; and
- Secure facility compliant exhibition space in Te Puke.

The Museum's responsibility begins, ends and revolves around the collection and its management. Up until now, the main objective has been to interpret the history of the District through the collection objects in exhibition and permanent displays. The Museum has not, however, been able to achieve best practice due to two things:

1. Lacking the expertise of a Museum qualified Collections Curator; and
2. Adequate storage and workspace facilities.

This report focuses on the first two points of their 10 year Development Plan.

Improving storage and workspace facilities and establishing best practice curation are closely interrelated. The employment of a Collections Curator will allow the Museum to leverage additional

support from the community. Having a full time Museum qualified Collections Curator will strengthen future proposals for grants and funding to build the purpose built storage facility.

The appointment of a Curator will assist with:

- Collection Development
  Helping to rationalise and develop the Museum's collection. This will reduce storage costs and make the Museum's collection more historically relevant.

- Return of Taonga
  Having a qualified Collections Curator and facility compliant storage will secure the return of the large collections of Ngai Te Rangi's Taonga that is held in the Waikato and Auckland Museums'. The return of local European artefacts, held at other Museums will also be sought. These collections will not be returned without Museum best practice underpinning their care.

- Training
  Staff and volunteers and interns could work towards Museum qualifications, under the Museum qualified Collections Curator.

- Professional Support
  Te Papa National Services Te Paerangi see the Western Bay Museum as a leader in the Museum sector in what small regional Museums can achieve whilst maintaining the Code of Ethics and the highest sector standards. The continuation of this special relationship is vital.

In consultation with Council's Property team, the Western Bay Museum, the Menz Shed, Community Van and Community Response have put together a concept plan for a new community building on Council owned land opposite Moore Park, on Middlebrook Road.

The Museum section of the facility will primarily be a storage facility of approximately 380m2, to house the collection.

The Museum would raise the funds needed to build the facility and are not seeking Council funding for the build. A community lease of the Council land, for the facility build, would be sought.

SIGNIFICANCE AND ENGAGEMENT

The Local Government Act 2002 requires a formal assessment of the significance of matters and decision in this report, against Council's Significance and Engagement Policy, in order to guide decision on approaches of engagement and degree of options analysis. In making this formal assessment, it is acknowledged that all reports have a high degree of importance to those affected by Council decisions.

In terms of the Significance and Engagement Policy, this decision is considered to be of low significance because community interest at this point is minimal and no community engagement is required. The financial implications associated with the decision are low.

FUNDING/BUDGET IMPLICATIONS

The draft LTP has funding of $70,000 per annum for the existing Service Delivery Contract.

The Western Bay Museum is seeking funding to implement the strategic plan.

Collections Curator	2021/22	$35,000 (6 months)
	2022/23	$70,000 (for 9 years)
Storage Facility	Community lease on Middlebrook Road	

ATTACHMENTS

1. **Western Bay Museum Strategic Plan** ⇩
2. **Western Bay Museum Development Plan** ⇩

WESTERN BAY MUSEUM

Strategic Plan

Western Bay Museum 2020

Executive Summary

The Western Bay Museum aspires to be Aotearoa's best small museum. It brings to life the pioneering spirit of the Western bay through education programmes, exhibitions and tours, and special events. Our strategic plan is designed to build on our strengths, remediate our weaknesses, seize our opportunities and address the threats that may affect our future. We seek to build on our high standards of professionalism in our display space and exhibition design by hiring a museum qualified collections curator and an NCEA educator, and to employ a digital marketing person. We plan to develop a permanent state of the art storage facility that conforms to museum best practice. This project will allow us to improve the working space for staff and volunteers, for both administration and collection management and preservation. Since the museum represents the whole of the Western Bay of Plenty District our long-term plan is to obtain museum compliant display space in Te Puke and recruit more volunteers from the eastern side of the District. To meet our Treaty obligations we will develop a strong and enduring partnership with the local iwi and build a new cultural space to display the taonga of the local hapu. The ultimate goal is to bring back local taonga that are held in other museums. While the Trust exercises prudent financial management, obtaining sufficient funds to operate the museum will always be a challenge and the initiatives that we are proposing will further increase our need for secure and reliable funding. We will endeavour to increase funding from sponsorships by local companies, increase the support from local organisations and seek additional support from national funding bodies. We will also explore special exhibitions and other events that can provide some income as well as provide insights into the history and stories of the District and its former inhabitants.

OVER THE LAST 12 MONTHS WE HAVE

- Launched the new brand to critical acclaim
- Established strategic vision, mission, and values
- Refreshed core value proposition & key messages
- Defined our audiences / target market
- Defined the best methods and channels to communicate with our audiences
- Created new brand elements: logo, printed materials, signage, uniforms, social media and website
- Made the Museum free entry to Western Bay of Plenty ratepayers and residents
- Delivered three successful Education Programmes
- Enhanced our Step Back In Time Museum Experience
- Started a robust marketing campaign
- Delivered three high quality thematic exhibitions
- Increased visitor numbers
- Engaged with local Iwi

Strategic Vision

Our Vison:
Aspiring to be Aotearoa's best small museum.

Brand Statement:
Bringing to life the pioneering spirit of the Western Bay;
Kia ora ai te mauri

Our Mission:
We are the guardians and custodians of the Western Bay's stories and treasures. We champion, commemorate and celebrate those who worked together – local Māori, Ulster Irish and all other settlers – to build this region and who helped to make it what it is today. Without them, and their legacy, there would be no us.

What we do through our education programmes:

'1900s School Experience' Our engaging and interactive school experience is one of the most memorable trips your children will take part in throughout their school years. Experience life from a bygone time - learn in an original 1900s schoolroom setting - experience technology and machinery from the past.

'Students Exhibition Experience' Through the generous support of the Lions Club of Katikati, many of our local students benefit from free access to our exhibitions every year helping to inspire future career paths in the Arts, Culture and Heritage sector.

'Treasuring Our Place – Taonga o Te Taiao' Delivered by an expert educator, our exceptional nature-based programme helps children learn the importance of environmental protection and 'bugs, bush and birds' through water testing and lessons on native ecology on the banks of the Uretara Stream.

What we do through our programmes:

'Step Back in Time - Exhibition Tour and Experience' Let us take you straight back to the 1900s! Visit includes a guided tour of the permanent and thematic exhibitions, scones (made on the range) and cups of tea served in antique bone china by volunteer guides in period costume.

'University of Waikato Music Faculty' Bringing a high quality cultural experience through music and performance to our region annually.

'Road Show' During the summer months we take our museum to a number of events and A&P shows throughout the North Island with our interactive roadshow. This is our most effective promotional activity, allowing us to build awareness of the museum and to demonstrate some of our unique and memorable hands-on experiences to thousands of potential visitors. Each event is staffed by our passionate volunteers who dress in period costume and who make rope, churn butter, shell dry maize, produce cornflour, grind coffee and mince-meat all using historic machinery from the 1900's.

'Theatre and Events' Sharing stories through our unique history and objects we provide events such as 'Murder at the Museum' and 'Magic Lantern' evenings.

Commemoration and Celebration We recognize the need to mark the important anniversaries of events that have had a significant impact on the nation as a whole and on the pattern of New Zealand life. We support the commemoration programmes set by the Ministry of Culture and Heritage for Aotearoa through our exhibitions, events and ceremonies.
In collaboration with our local partners (such as the RSA) and with support from the Ministry of Culture and Heritage, we act as a central point where the community can connect with all of New Zealand's significant commemorations including ANZAC Day, Armistice Day and those of historical significance to tangata whenua.

Exhibitions We continue to be at the forefront of quality in museum principles and practices. We keep our collections and exhibitions current, uncluttered and simple and we display items in creative and engaging ways. Updated three times a year, we bring our high-quality exhibitions to life.

Our Brand Values

Forward Thinking

Without a vision, there would be no Western Bay as we know it. Without the communities' vision, there would be no Western Bay Museum. From its roots as the Katikati Heritage Museum almost 20 years ago, the dream has only become a reality due to the vision of Paula Gaelic and her team. Now, the museum is a modern organisation forward-thinking in everything it does. There are always new ideas, new ways of working and new dreams to follow. We never rest on our laurels. We always want to be the best.

Adventurous with our ideas

In order to thrive and grow, we must think outside of the box. We must not just think forward, but sideways as well. How can we do things differently to make our museum even better? Can we take calculated risks to raise our profile and keep ourselves top of mind? The pioneers of past times discovered, invented, built and created. We must do the same. Who else can we partner with to provide synergy with greater community involvement and support.

Environmentally Focused, Sustainable

Tangata whenua and the settlers consider themselves protectors of the land. It provided everything they needed, gave them water, food, shelter and enabled them to build a life. Without the land we could not thrive as a community and we would not survive. Without the water that runs in the Uretara Stream, the building we are in that so carefully houses our treasures and the gardens containing medicinal goodness, we would not be the community we are today. We take our job as custodians seriously and we are focused on recycling, protecting our environment and using sustainable practices.

Financially frugal

Like our forbearers, we never take for granted the funding we have. We carefully spend on what we know brings joy to visitors and stakeholders alike. We make do and mend where we can, but we will always invest in doing things properly. If we cannot do it properly, we will not do it at all.

Hard working, brave & determined

We push the boundaries, we stand up for what we know is right, we strive to create a better museum every day and we are never finished. We do not let bureaucracy or negativity stand in our way. Our determination to keep our history alive is what keeps us going. We accept the struggles as our forbearers did and we keep pushing on in their memory.

Community

The settlers and the Tangata Whenua worked together to build the Western Bay. Without them, there would be no us. We represent the entire community of the Western Bay and we work for them, with them. We know collaboration makes us stronger and that together we can achieve so much more. Our partners, volunteers, sponsors and visitors are what make us what we are today.

Legacy

The stories handed down through the generations, the taonga, the songs and photographs, the important lessons, the tools, the collections...these are all our legacy. The contributions from volunteers, sponsors, councils and organisations. Our descendants will own the effects, outcomes and tangible items that stem from the decisions we make every day. We owe it to them to leave a legacy as our forbearers did for us.

Commemoration & Celebration

We commemorate Aotearoa's anniversaries to remember and celebrate those that came before us. Without them, there would be no us.

SWOT Analysis

Strengths

- High standards & professionalism in all we do
- Stand-out building
- Unique experiences
- Management
- Committed and knowledgeable volunteers
- Te Papa National Services Te Paerangi and Museums Aotearoa Support
- Relationships
- Financial & IT Management
- Passion, Commitment & Team Spirit
- Collaboration & Community engagement
- Western Bay of Plenty District Council
- Main Street location
- Creative Bay of Plenty support
- Sponsorship
- The Trust – new people and expertise
- Events
- Exhibitions (ever-changing, thematic and quality)
- Local support
- Brand

Weaknesses

- Tangata Whenua relationships and involvement
- Awareness
- Limited budget
- Lack of space
- Social media
- Lack of paid digital media staff
- Time constraints of manager and administrator
- Lack of coffee/snack/gift shop
- Lack of museum qualified paid staff
- Dependency on donations for essential services
- Friends of the Museum could be improved by being run in house
- Need to build the relationship between museum/trust/friends
- Age of volunteers
- Number of tour guides
- Lack of a Western Bay District Council/Tauranga City Council 'Heritage Strategy'
- Financial constraints
- Resource constraints

Opportunities

- The Katikati Tour Experience
- Schools and kindergartens
- Inbound - Cruise ships in future now focus on national market 'Our backyard'
- Partnerships with youth
- Grow the group and educational experiences
- Sponsorship packages – 'Money can't buy'
- New sponsors – long term partnerships 3+ years
- Events and functions
- Museum qualified staff – enable internships
- Social outreach – mental health
- NCEA Museum Qualified Educator
- Iwi Development

Threats

- Impact of pandemics
- Funding opportunities
- Risk of losing Western Bay of Plenty District Council funding
- Loss of lease of Fire Station building
- Loss of lease of Storage
- Costs of Storage building
- Dependency on Paula Gaelic – succession plan
- Distance from the Mount / Tauranga
- Separation from Te Puke / Eastern end of Western Bay of Plenty
- Lack of compliant display space in Te Puke
- Volunteers
- Financial security

What are our Strategic Areas of Focus?

- Operations
- Te Papa National Services Te Paerangi - Museum Development
- Relationships and Partnerships
- Staffing (Paid and Volunteers)
- Brand and Marketing
- Iwi Development and Treaty of Waitangi Obligations
- Trust Focus on Governance and Leadership
- Prudent Financial Management

Our segments and their needs

Tourists

- View local history through exhibitions
- Knowledgeable guides for tours and groups
- Interactive and enjoyable activities
- Reasonably priced
- Passing through / somewhere to stop
- A hidden gem / Something unexpected
- A rainy day activity

Educators

- Education on history
- Interactive and enjoyable activities for students
- Reasonably priced educational experience
- Something that links with the school curriculum
- Opening minds to career pathways
- Environmental programmes

Sponsors, Partners and Funders

- A place that enables them to leave a legacy
- Seen to support local organisation
- A place that is relevant to education
- A high quality investment that reflects their business values
- Personal relationship, not just giving

Locals

- A place to gift and preserve family treasures
- Research family history or object
- View local objects of interest / family memorabilia
- Have a connection to family history and to learn local stories
- Somewhere to tell their story & be heard
- Somewhere to use as a space to do things

Groups

- Education on local history
- Interactive and enjoyable activities that create a shared experience
- Reasonably priced
- Something different
- Bespoke programmes that take into account individual group needs i.e. special needs, retired etc

What are the big dreams?

The right number and type of staff

- Museum Qualified Collections Curator
- Museum Qualified NCEA Educator
- Tour Guides to facilitate museum tours
- Qualified Digital Marketing person

Storage

- State of the art storage facility that conforms to Museum Best Practice
- Workspace for Collections staff
- A place that is permanent
- The Return of Taonga held in other Museums

District inclusivity

- Museum operating throughout the district
- Museum compliant display space in Te Puke (physical space and human resources
- Researchers and Historians from the Eastern District

Appropriate working facilities

- Private office for Management and Administrator

New Cultural Wing/Building

- Dedicated Museum Compliant Facility
- Expansion of the Museum Space to tell Maori stories
- Museum Best Practice of taonga Maori
- Repatriated taonga Maori collections currently housed in compliant Museum facilities

Tour Packages

- Development of a Katikati Tour Package

Te Papa National Services
Te Paerangi
Museum Development Plan specific for Western Bay Museum.

Over the next 10 years the Western Bay Museum plans to:

* Construct a purpose built storage facility within the first 3 years.

* Employ a Museum Qualified Collections Curator to manage the collection within the first year.

* Return locally significant Taonga to their Whenua.

* Construct an extension to the Museum to display Maori history and artefacts.

* Create a strong focus on Te Puke School visits.

* Secure facility compliant exhibition space in Te Puke.

Museum Qualified Collections Curator – Collections care and responsibilities

The Collection is the heart of the Museum. The Museum's responsibility begins, ends and revolves entirely around and the collection and its management. Up to now the principal objective for the Museum has been to interpret the history of the District through the collection objects in exhibition and permanent displays. This has been done very successfully and has been a crucial factor in building community support for the museum.
Less successful has been the Museum's other objective: to provide for the long-term preservation of the items in the collections. Here we have not been able to achieve best practice because we lack the expertise of a Museum Qualified Collections Curator and adequate storage and workspace facilities.

With the financial assistance of Te Papa National Services Te Paerangi we have had a professional evaluation of our situation in this regard. The report that has resulted from this serves as our roadmap to get us on the correct path. It is clear that improving storage and workspace facilities and establishing best practice curation are closely interrelated. Employing a Museum Qualified Collections Curator cannot come at the expense of our operation fund. Finding a suitable source of funding has proved challenging and has been complicated by COVID19. We have concluded that we require Western Bay of Plenty District Council to assist with funding for this position in the Long Term Plan. We believe this will allow us to leverage additional support from the community to fully fund the position. Having a full time Museum Qualified Curator will strengthen our proposal for grants and funding to build the purpose-built storage facility.

Collection development. In addition to overseeing, the day-to-day care of the collection a professional curator is essential for us to rationalize and develop our collection. This will reduce storage costs and make our collection more historically relevant.
Return of Taonga. Having a Museum Qualified Collections Curator and facility compliant storage will secure the return of the large collections of Ngai Te Rangi's taonga that is held in the Waikato and Auckland museums. These collections will not be returned to our care without museum best practice underpinning their care. This taonga has national significance and includes some objects that were included in the Te Maori Exhibition that travelled the world.
Training. Staff and Volunteers could work towards museum qualifications. Students from the tertiary sector could work towards museum qualifications as interns under a Museum Qualified Collections Curator.
Professional Support. Te Papa National Services Te Paerangi have been working closely with us on this issue. They see us as leaders in our sector and in doing so provide an example of what small regional museums can achieve whilst maintaining the Code of Ethics and the highest sector standards. Succeeding in this area will ensure we maintain this special relationship with Te Papa National Services Te Paerangi. This is an extremely valuable and privileged partnership for the Museum and without which we would not be the recognised institution we are today.

Collection Storage Facility & Workspace

In consultation with Councils Property Manager, Blaise Williams, The Western Bay Museum, along with the Menz Shed, Community Van and Community Response have put together a concept plan for new community buildings on Council owned land opposite Moore Park. (Plan attached)

The Museum section of the facility will primarily be a storage facility of approximately 380m2 to house the collection on behalf of the people of the Western Bay of Plenty District. We estimate the cost at around $1 million, this does not take into account the value of the land which we would see as a contribution from Council. The Museum would raise the money needed to build the facility by working together with the other stakeholders to raise funds from recognised donor organisations. We are not looking to Council to help fund this project.

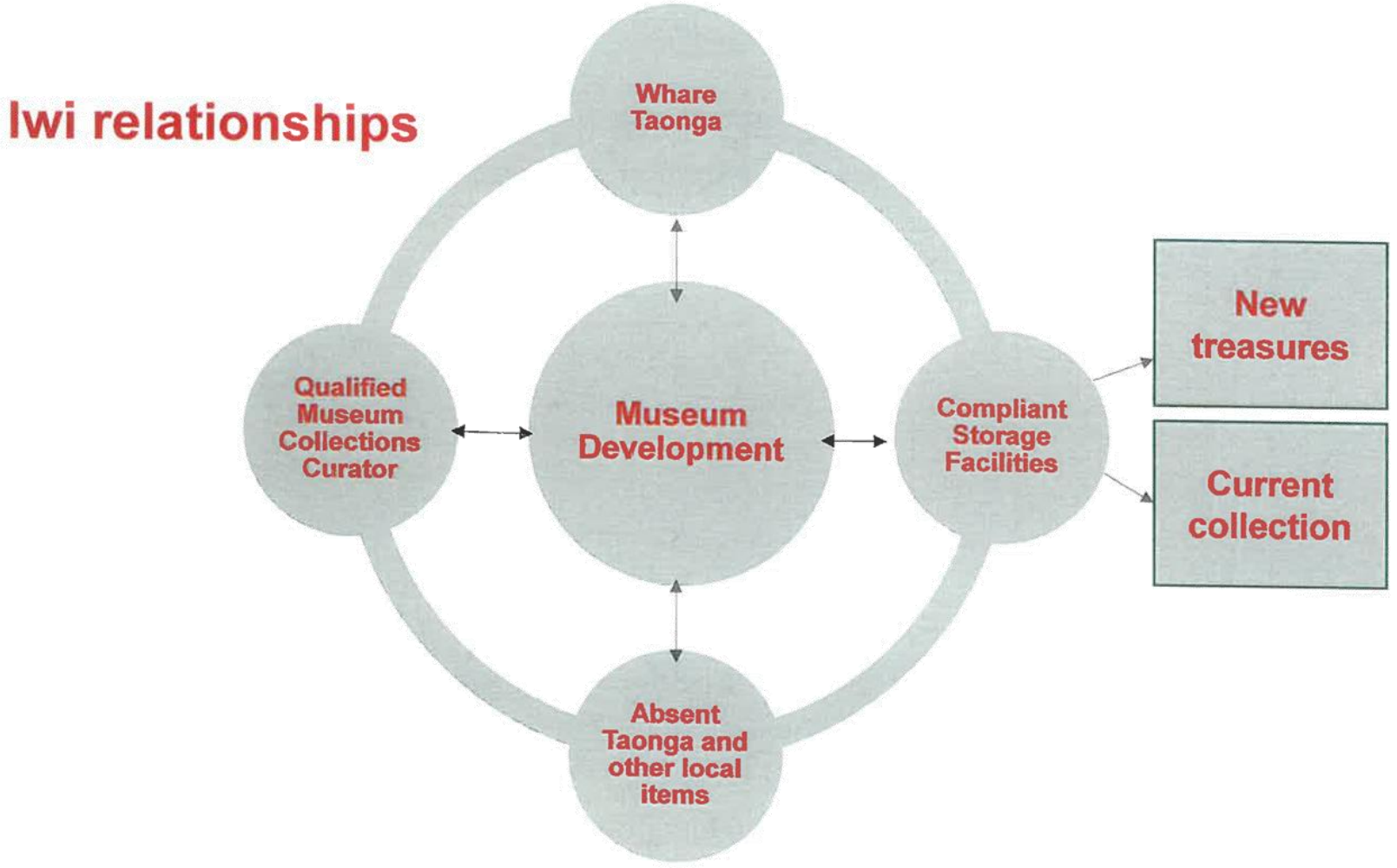
This new facility is essential for the further development of the Museum to correctly house the collection. By doing this we can also bring back Taonga, which is currently held by other Museums. Without a proper facility, we are unable to obtain these treasures that belong to this Whenua.

The Taonga Return Project

For many years the Katikati and Matakana Tangata Whenua have sought the safe return of over one thousand Maori artefacts that have been recovered during archaeological excavations in the area. NZ Law requires that such recovered Taonga are held safely in approved storage facilities. The Taonga in question are held currently by Auckland and Waikato museums.

The restoration of Mana to these Taonga is dependent on their return to their Turanagawaewae. This is a matter of great significance both to the Tangata Whenua and the Museum Management and Trustees. Prior to the return, the Museum will be required to construct an approved Whare Taonga. The New Zealand Government has funds available to assist with this culturally significant project that Trustees plan to complete before 2030.

Return of The Treasures Project



Western Bay Museum development timeline

	first 12 months	2 to 3 years	4 to 6 years
Storage & Workspace - Middlebrook	Obtain community board approval Public notification of use of Council land Council approval obtained Working drawings/costings obtained Fund raising begins	Fund raising continues Tenders called for and contract let. Building commences and is completed.	
Museum Qualified Collections Curator	Letters of support - MA & TPNSTP Secure funding - WBOPDC LTP Secure funding - TECT Secured private donor $15,000.00 Advertise position Museums Aotearoa		
Taonga Return Project	Build strong partnership with Ngati Rangi	Partnerships contract with Iwi Design compliant taonga storage space	Community Board approval to build 'Cultural Wing' Council approval obtained Public notification of use of Council Land Working drawings/costs obtained Fund raising begins

Sheet List

Sheet Number	Sheet Name	Sht
3D VIEW	3D VIEW	A
FLOOR PLANS	2D	
GARAGE LAYOUT	A1-1	
ELEVATIONS	A1-1	
SECTIONS	A1-1	
SECTIONS	A1-1	
SECTIONS	A1-1	
SITE PLAN	SP-1	

Issue	By	Date
1 FOR COMMENT	BL	06.08.

stilesandhooke
ARCHITECTS + ENGINEERS

Address: 224 Collingwood St, PO Box 7126, Hamilton 3240, New Zealand
www.stilesandhooke.co.nz
TELARC REGISTERED SUPPLIER ISO 9001

Client: INPUT CLIENT NAME

Project: KATIKATI MENZSHED & MUSEUM STORE

Drawing Title: 3D VIEW

Designed	Scale	Drawn
IB		BL
Date	INPUT PROJECT DATE	Original Size A1
Job No	Drawing No	Issue
20-166	A0-00	1

PRELIMINARY

3D VIEW 1
@AL 1:400@A3

3D VIEW 2
@AL 1:400@A3

9.6 WAIHI BEACH ROCK REVETMENT - COUNCIL LANDOWNER CONSENTED COASTAL PROTECTION WORKS

File Number: **A3968271**

Author: **Kelvin Hill, Utilities Manager**

Authoriser: **Gary Allis, Deputy Chief Executive**

EXECUTIVE SUMMARY

A request has been made by private landowners to seek Council's permission to extend the existing northern sea wall at Waihi Beach further north for a distance of approximately 300m to finish north of the Flat White Café. This is in accordance with the direction provided by the Operations & Monitoring Committee on 14 February 2017, Resolution OP1.2. **Attachment 1.**

They are seeking Council Landowner approval to construct the works largely at their own expense and partially on Council land.

It is recommended that Council provide landowner approval for the implementation / construction of consented coastal erosion protection works (potentially rock revetment extension) within the Council beachfront reserve land between 21 and 41 Shaw Road.

The exact nature of the works is subject to the design and consenting process. The landowners' preference is for a rock revetment extension.

RECOMMENDATION TO COUNCIL

1. That the Utilities Manager's Report dated 2 February 2021 titled 'Waihi Beach Rock Revetment - Council Landowner Consented Coastal Protection Works' be received.
2. That the report relates to an issue that is considered to be of medium significance in terms of Council's Significance and Engagement Policy.
3. That Council notes that assessment against its Coastal Erosion Response Policy indicates no need to protect Council's Elizabeth Street Reserve asset with a hard structure.
4. That Council, as administering authority and landowner, approves the private construction of consented coastal works on Council reserve, Lot 125 DP35465 Waihi Beach, subject to the conditions, including:
    - A resource consent being granted by Bay of Plenty Regional Council (BOPRC);
    - Consent and construction fully funded by owners;
    - Agreement with Council on operational cost and responsibilities; and
    - Council funding construction, but not design, and consenting costs for the Elizabeth Street Reserve Section.

    Or
5. That Council declines private construction of a rock revetment extension or other consented works on the Waihi Beach reserve, Lot 125 DP35465.

BACKGROUND

Waihi Beach Sea Wall or 'rock revetment' forms part of a coastal erosion protection system and was constructed in 2011. It consists of two lengths of rock revetments separated by Two Mile Creek.

The northern section is approximately 600m long and the southern section approximately 400m long. Sand dune enhancement was also included in the system in adjacent areas.

The key design goals of the system were developed based on discussions with recognised consultant experts, Council, and from consultation with local community stakeholder groups and beachfront residents.

The goals included important aspects such as (note, this is not an exhaustive list):

- The wall is to provide erosion protection to the landward assets, but not to provide protection from inundation and flooding;
- Public access to the beach to be maintained; and
- Access to be provided along Council reserve landward of the wall where possible.

Other specific goals were included to limit the location and extent of a sea wall on the frontage along approximately one kilometre of the beach.

Funding for the capital cost and maintenance of the protection system is covered by a targeted rate.

Over the past few years, the rock revetment has been monitored and has generally performed in accordance with the design and consent requirements.

However, dune enhancement at the northern end of the seawall, which was part of the erosion protection system, has failed, with severe erosion occurring due to the enhancement being located within the active beach (below the high tide zone).

This has become apparent to nearby owners who have noticed the substandard performance and engaged with Council on revised options for protection.

WAIHI BEACH COASTAL STRUCTURES REVIEW – BECA 5 JULY 2019

As part of 2008 consenting requirements, Council was required to develop a long-term strategy for the coast. Council engaged Beca Consultants, who delivered a report in February 2019 on Waihi Beach Coastal Structures Review, which was received by Council. **Attachment 2**

The Beca report addressed condition 13 and included a review of physical options for management of the coastal hazard risk.

The review was received by Council on 15 August 2019. It has been accepted by BOPRC as meeting the consent condition.

In the Beca review, the report observed: "the coastline between Flat White Café and the northern seawall termination appears to be actively receding, resulting in a future loss of the dune and seafront property". (Section 4.2.2) **Attachment 3 (MAP)** sets out the area being considered under this proposal.

To date, the property owners along Shaw Road have been undertaking various activities in relation to progressing a hard structure solution for the failed soft option solution.

The residents have funded a report by John Lumsden, a recognised Coastal Engineer who provided a review of the current performance of the works and suggested accommodations for managing the current erosion issues to the foreshore. **Attachment 4**

The property owners have attended a number of Council meetings over the last five years seeking support and action by Council to solving the matter.

Currently, these property owners consider they are paying for a "failed soft option" dune structure, and recognise that funding of any alternative options would be an issue for Council.

The property owners have publicly stated that, if Council grants permission for a hard structure to be built in the Council reserve area, then the property owners' group are prepared to undertake the following activities:

1. Prepare and fund applications to BOPRC for a Resource Consent to cover the extent of these works.
2. Prepare and execute necessary documentation for the construction of these works.
3. Provide the financial capacity to meet the costs associated with the resource consent application and the physical construction of the works.

Council staff would continue to provide technical overview and guidance in this process to ensure Councils interests are protected.

The finished works would need to be vested in Council and form part of the existing maintenance regime currently undertaken on the existing rock revetment and dune enhancement works each year.

As part of the vesting of these works to Council, the resource consent would need to be transferred to Council to ensure ongoing compliance is maintained and that a consistent approach is maintained with the current coastal protection works undertaken by Council.

LANDOWNER APPROVAL

The residents request that Council provide landowner approval for the construction of consented works. This approval is from Council as landowner and does not imply that any regulatory approval will be granted. Consent for the work will be required from BOPRC and possibly this Council.

COUNCIL LAND

Council own the reserve section Lot 125 DP35465, adjacent to the Flat White Café, which provides a grassed recreational area, car parking and access to the beachfront by way of timber steps.

Funding for this reserve section will need to be included as part contribution to the overall costs of the total project. This funding would be from the annual erosion protection budget in the Reserves & Facilities activity.

SIGNIFICANCE AND ENGAGEMENT

In terms of the Significance and Engagement Policy this decision is considered to be of medium significance as the decision on the coastal works will be made through the BOPRC Resource Consent process.

ENGAGEMENT, CONSULTATION AND COMMUNICATION

Interested/Affected Parties	**Completed/Planned Engagement/Consultation/Communication**		
Name of interested parties/groups	Shaw Road beachfront residents between 21-41 Shaw Road support the proposal.	Planned	Completed
Tangata Whenua	Not yet consulted but would form part of the application process for resource consent by the property owners.		
General Public	The consent notification status would determine the consultation process.		

ASSESSMENT AGAINST THE COASTAL EROSION RESPONSE POLICY

The BOPRC has jurisdiction to determine whether coastal structures are appropriate. As a result, WBOPDC's Coastal Erosion Response Policy is designed to guide decisions about Council's own

assets i.e. Council's activities as a landowner or infrastructure provider, not as a regulator. **Attachment 5**

PRIVATE ASSETS PERSPECTIVE

Despite the policy not being intended for the purpose, three options from the Beca Report were chosen for comparison and assessment. **Attachment 6.**

- Option 1. No 4 Dune Enhancement;
- Option 2. No 3 Extend the sea wall north to the Flat White Café; and
- Option 3. No 7 Build backstop wall north from the existing sea wall to the Flat White Café.

When considering the options from a private owner perspective, beneficiaries of any erosion protection system, holding the line is likely the appropriate action to take. This would assume there is an appropriate and consent approvable option that would fit between the houses and the sea.

It is important to note that, due to existing building locations, there is insufficient space to locate the rock revetment fully on private land.

COUNCIL ASSETS

The policy essentially focusses on WBOPDC's own assets and lists three approaches:

- Hold the line;
- Adaptive approach; or
- Let nature take its course.

In this location, apart from the beach and dune system and the reserve, there are no Council recreational/amenity/infrastructure assets to protect.

The outcome of the Coastal Erosion Response Policy Assessment concluded that as Council assets were limited to sand dunes and a reserve, protection of this asset could not be justified.

CONCLUSION AND RECOMMENDATION – COASTAL PROECTION OPTIONS

When considering the options, which address the erosion issues between the north end of the existing sea wall and the Flat White Cafe, the most viable option for private landowners is Beca Report No 6 – extend the existing wall. While its construction creates additional issues such as lowering the sand level and removing a beach above high water, its construction results in the lowest risk profile and is understood to have the most support from benefitting owners.

It would be located on Council land and would be maintained in a similar manner to the existing wall. Council now has the option to agree to its construction, or not, on Council reserve.

The recommendations relate to whether Council provides approval to construct a coastal protection works on Council land, subject to conditions and a Resource Consent application to the BOPRC being approved.

In granting approval, Council needs to be satisfied that the consultation on the proposal will occur through the resource consent process and BOPRC decision making.

Recommendation 3

That Council as administrating authority and landowner, approves the private construction of consented coastal works on Council reserve, Lot 125 DP35465 Waihi Beach, subject to the conditions, including:

- A resource consent being granted by BOPRC;
- Consent and construction fully funded by owners;
- Agreement with Council on operational cost and responsibilities; and
- Council funding construction but not design and consenting costs for the Elizabeth Street Reserve Section.

Assessment of advantages and disadvantages including impact on each of the four well-beings: • **Economic** • **Social** • **Cultural** • **Environmental**	Property owners along Shaw Road can provide protection to their individual properties. The original sea wall project consenting was a lengthy undertaking and appealed to the Environment Court. Approving the sea wall extension risks raising all the same issues. While Council is not the consent applicant, it will have given landowner permission and therefore will be considered to support the proposal. The risk profile of this option (for private landowners) will reduce from its current HH to MM with a significant risk of loss of beach amenity i.e. no sand visible at high tide. This is a similar social, cultural and environmental outcome as the existing sea wall. The property owners need certainty around the ability to construct if the consent is approved and that is why this decision is required ahead of the consenting process. The community will have an interest in the proposal and may consider that Council should have consulted direct rather than via the consent process.
Costs (including present and future costs, direct, indirect and contingent costs).	Capital costs (apart from the reserve proportion) are privately funded. Ongoing maintenance costs are estimated at $2,000 p.a. with a ten yearly storm restoration cost estimated at $20,000 for each major storm. The reserve is 1/12th of the proposed works.
Other implications and any assumptions that relate to this option.	Assuming Council grants permission to construct coastal protection works on the reserve, properties would remain essentially untouched. At the end of the works, Council would own both the consent and the consented works. Key activities that will be managed by private property owners include: 1. Obtaining resource consent from BOPRC including consultation. 2. A signed document confirming that property owners will be fully funding both the consent process and contracting for physical works. 3. An agreement between property owners and council regarding the operational costs and responsibilities. The risk profile of this option will reduce from its current HH to MM with a significant risk of loss of beach amenity i.e. no sand visible at high tide. This is a similar social, cultural and environmental outcome as the existing sea wall.

Recommendation 4	
That Council declines private construction of a rock revetment extension or other consented works on the Waihi Beach reserve, Lot 125 DP35465.	
Assessment of advantages and disadvantages including impact on each of the four well-beings: • **Economic** • **Social** • **Cultural** • **Environmental**	The community will have an interest in the proposal and may consider that Council should have consulted direct rather than via the consent process. Disadvantages beach front owners who wish to protect their properties. The properties remain more at risk to coastal processes.
Costs (including present and future costs, direct, indirect and contingent costs).	The dune enhancement costs will continue. The property owners will consider that these costs are contributing to a failed situation and may take action against Council.
Other implications and any assumptions that relate to this option.	

STATUTORY COMPLIANCE

The recommendations meet:

- Legislative requirements/legal requirements;
- Current council plans/policies/bylaws; and
- Regional/national policies/plans.

A change to the Waihi Beach Coastal Protection Funding Policy maybe required if the project proceeds.

FUNDING/BUDGET IMPLICATIONS

For the sea wall extension, it is recommended that all consent and construction costs are privately funded, and maintenance and operational costs are recovered through a targeted rate.

The Consent process and if successful the construction, will be fully funded by the property owners.

The following is to be included in the next LTP.

Budget Funding Information	Relevant Detail
Capex: $1.2M – private landowners	Extend the sea wall north from the existing rock revetment sea wall to the Flat Café. Consents, Design and Construct. Annual Maintenance costs. May require a review of the Revenue and Financing Policy for the coastal works if the consent is approved.

$100,000	Estimated Council cost for the Elizabeth Street Reserve section based on a 1/12th share, funded from the Reserves Erosion Protection budget.

ATTACHMENTS

1. **OP1.2 - Operations & Monitoring Resolution - Waihi Beach Dune Enhancement Works Coastal Management Options** ⇩
2. **Beca Report - Waihi Beach Coastal Structures Review - July 2019** ⇩
3. **Waihi Beach Sea Wall Map - Area to be Considered** ⇩
4. **John Lumsden Report - Review of Coastal Management Options at Northern End of Waihi Beach** ⇩
5. **WBOPDC Coastal Erosion Responses Policy 2017** ⇩
6. **Waihi Beach Rock Revetment Approval for an Extension located on Esplanade Reserve July 2020** ⇩

Resolved: Murray-Benge / Dally

THAT the presentation in relation to Speed Guidelines from the New Zealand Transport Agency on 14 February 2017 be received.

OP1.2 **Waihi Beach Dune Enhancement Works Coastal Management Options**

The Operations and Monitoring Committee considered a report from the Utilities Manager dated 1 February 2017 as circulated with the agenda. The Utilities Manager introduced the report and the following attendees:

Ivan Tottle, David Lugton, Tony Shergold and Andy Kennedy (owner Flat White Café at 21 Shaw Road), were in attendance representing the Waihi Beach Protection Society, and on behalf of the residents of 1-41 Shaw Road, Waihi Beach.

At the invitation of the Chairperson, Mr Tottle addressed the committee speaking to a powerpoint presentation and noting the following key points:

- The previous post and timber seawall had successfully restrained erosion, but had been removed and replaced with a combination of dune enhancement and rock revetment.
- Dune enhancement had failed.
- Rock revetment was performing well.
- Residents continued to pay for the failed works.
- Beachfront properties continued to erode and were unsightly.
- Coastal properties along Shaw Road, Waihi Beach were at significant risk from coastal hazard.

Staff responded to questions as follows:

- In 2020, Council would be required to provide some form of demonstration to convey that it had considered all options available. It would also have to do a five year report back to Council on the success on the rock wall revetment and dune enhancement works.
- Waihi beach had an 18 year natural cycle of beach changes (lowering and raising), Council was yet to see that cycle come to an end, and would not see more change until June 2017.
- When Council did works there, they had to import sand, as the resource consent would not allow them to use the beach sand. Due to this cost, amongst other things, Council had received negative media coverage in the past.
- Council had constructed large steps to assist residents to have access to the beach. However, there was uncertainty about replacing such structures now as a storm event could eradicate any further actions.
- The original project analysis had indicated that the rock revetment was to continue through to the Flat White Café. Currently, in the area north of the café, the dune itself was well established with additional planting. In terms of appearances, the dune south of the café had indicated to staff that the original analysis had not necessarily "got it right", but Council was now being overruled by the community in this matter.

- As there had been remnants of a timber structure (albeit broken) in the past, Council was required to maintain or replace the original structure. That was the reason the rock revetment was constructed.

Mr Tottle responded to questions as follows:

- He had met with staff of the Bay of Plenty Regional Council, who had indicated support.
- They were hopeful that a buried wall as an invisible structure was not going to be an issue. They were proposing an aesthetic solution and hoped that the proposal would be debated successfully. Objections to the existing revetment all centred around failure of the function of the existing wall.

In discussion of the report members noted that currently there were unknown factors and further evidence was required. It was acknowledged that a detailed business case would ensure information was gathered and collated so that appropriate decisions could be made.

Resolved: Murray-Benge / Mackay

1. *THAT the Utilities Manager's report dated 1 February 2017 and titled Waihi Beach Dune Enhancement Works Coastal Management Options be received.*

2. *THAT the report relates to an issue that is considered to be of medium significance in terms of Council's Significance and Engagement Policy.*

3. *THAT the Operations and Monitoring Committee instruct staff to prepare a detailed business case and action plan for implementing the coastal management options as recommended in the J.L. Lumsden Consulting Engineer's Report for the following sections:*

    - *43 Shaw Road to Elizabeth Street and*
    - *Elizabeth Street to Coronation Park*

    and report back to the Operations and Monitoring Committee.

10.47am The meeting adjourned for morning tea.
11.02am The meeting reconvened.

OP1.3 **Two Mile Creek Erosion Protection Works Funding for Works Contract 16/1077**

The Operations and Monitoring Committee considered a report from the Utilities Manager dated 1 February 2017 as circulated with the agenda.

The Utilities Manager introduced the report and noted that the contract to construct the Two Mile Creek Erosion Protection Works from Dillon Street Bridge to the beach had been awarded to Beach Contractors who planned

Date 1 February 2017 **Open Session**
Subject Waihi Beach Dune Enhancement Works Coastal Management Options

Western Bay of Plenty District Council

Operations & Monitoring Committee

Waihi Beach Dune Enhancement Works Coastal Management Options

Purpose

To provide Councillors with an update on the property owners working party relating to the mostly failed dune enhancement works between 23 and 41 Shaw Road, Waihi Beach and seek direction from Councillors on the next stage.

Property owners will be presenting to the Committee during the meeting.

Recommendation

1. ***THAT the Utilities Manager's report dated 1 February 2017 and titled Waihi Beach Dune Enhancement Works Coastal Management Options be received.***

2. ***THAT the report relates to an issue that is considered to be of medium significance in terms of Council's Significance and Engagement Policy.***

3. ***THAT the Operations & Monitoring Committee instruct staff to prepare a detailed business case and action plan for implementing the coastal management options as recommended in the J.L. Lumsden Consulting Engineer's Report for sections:***

   - ***43 Shaw Road to Elizabeth Street and***
   - ***Elizabeth Street to Coronation Park***

   and report back to the Operations & Monitoring Committee.

Kelvin Hill
Utilities Manager

Approved

Gary Allis
Deputy Chief Executive

A2836265 Page 1

1. Background

The physical works contract for the Waihi Beach rock revetment and the dune enhancement works began in April 2010, with both sections of works being completed by late May 2011.

Within the first week of completion, the coastal protection works was subjected to significant storm events of June 2011, which resulted in the beach lowering by over a metre and the dune enhancement works completely disappearing.

Since this event, Council staff have kept a record of the beach level profiles and kept a close eye on the erosion of the existing dune face along the beach from the end of the rock revetment structure at 41/43 Shaw Road to 91 Shaw Road.

Property owners have raised concerns to Council over the risks to their properties with the potential for erosion to encroach into their land, noting they were still subject to paying for the works lost in the earlier storm events.

Because of these concerns, residents formed the Waihi Beach Protection Society Inc (WBPS) and requested a meeting with the Mayor, local ward Councillors and staff.

A meeting was held on Friday, 18 July 2014 with 10 property owners in attendance with the primary purpose of discussing what the future planning needs for this section of dune system would be implemented, noting that a permanent solution would need to be explored and implemented.

Direction was provided by the Mayor (Ross Patterson) and Councillors Mike Williams and Ross Goudie, that a collaborative approach was seen as a positive step forward. The Utilities Manager was requested to work with the WBPS and explore the options available to progress a solution.

Key points noted from the meeting and agreed between both parties.

1. Council recognised the need to protect private property in the dune enhancement areas and are committed to doing so. It was agreed by all that putting sand back on the beach would not be effective and a waste of ratepayers' money.

2. That Council staff will arrange a meeting with the Bay of Plenty Regional Council staff to discuss the consenting process if an alternative solution was considered better than the reinstatement of the dune enhancement works. A WBPS member would also attend this meeting to gain an understanding of the process.

3. All agreed a solution will need to be based on specialist advice and not on an opinion and that, differing solutions are possible.

4. Any funding options would need to be discussed after an engineering solution had been established and the appropriate resource consent applied for. (At this stage, Council could not commit to any financial support, but was happy to have Council staff provide technical assistance as required.)

5. That the engineering solution could be different for the area south of the Flat White Café to the area north heading to Coronation Park and was dependent on 'buy in' from the property owners fronting this works area.

The Way Forward
Since the initial meeting held at Council offices the WBPS members have consulted with property owners along the section of beach, held a number of planning meetings, visited Bay of Plenty Regional Council and discussed the resource consent process.

A decision was taken by WBPS members to jointly fund a professional report by a recognised specialist, to prepare a report outlining the coastal management options as part of the resource consent application process.

Consulting Engineer, Mr John Lumsden was chosen given his history and knowledge of Waihi Beach consenting process. A copy of his 30 June 2016 report is attached for information ***(Attachment A)***.

The report concludes that it is clear that doing nothing is not an acceptable solution and further dune enhancement is unlikely to provide a level of protection needed. Mr Lumsden's recommendation is that the existing rock revetment be extended in the same form, through to Elizabeth Street thus providing protection works that could be expected to withstand most storms.

The Next Step
The WBPS members now seek support from Western Bay of Plenty District Council to progress this subject matter to the next stage, that of detailed design, resource consent application, funding mechanism and implementation timing.

It should be noted that as part of the resource consent requirements a detailed report shall be provided to Bay of Plenty Regional Council on the condition assessment of the rock revetment and dune enhancement works after five year period. This report is being prepared by staff and will be submitted prior to June 2017.

WBPS members will be in attendance at the Operational Committee meeting to present their views on the coastal management options.

2. Significance and Engagement

The Local Government Act 2002 requires a formal assessment of the significance of matters and decisions in this report against Council's Significance and Engagement Policy. In making this formal assessment there is no intention to assess the importance of this item to individuals, groups, or agencies within the

community and it is acknowledged that all reports have a high degree of importance to those affected by Council decisions.

The Policy requires Council and its communities to identify the degree of significance attached to particular issues, proposals, assets, decisions, and activities.

In terms of the Significance and Engagement Policy, this decision is considered to be of medium significance because *the wider community will have the opportunity to provide their opinion on any proposed work on the beach.*

3. Engagement, Consultation and Communication

Interested/Affected Parties	Completed/Planned Engagement/Consultation/Communication
Name of interested parties/groups	As part of the business case process a communications and engagement plan will be developed and will include consultation with all interested stakeholders and tangata whenua.

4. Issues and Options Assessment

Prepare Business Case and Action Plan	
Reasons why no options are available	**Legislative or other reference**
Because a detailed business case and action plan for implementing the coastal management options as recommended in the J.L. Lumsden Consulting Engineer's report is required.	

5. Statutory Compliance

The business plan will address the following:

- Legislative requirements/legal requirements.
- Current Council plans/policies/bylaws.
- Regional/national policies/plans.

6. Funding/Budget Implications

Budget Funding Information	Relevant Detail
	The business plan will outline the funding options both currently in place and any new proposed policies regarding this particular project. Council funding, if any, would be subject to the LTP process.

www.beca.com

Final Report

Waihi Beach Coastal Structures Review

Prepared for Western Bay of Plenty District Council

Prepared by Beca Limited

5 July 2019

Revision History

Revision N°	Prepared By	Description	Date
	Tom Craigie	Draft for Internal Review	13 February 2019
	Tom Craigie	Working Draft for client	15 February 2019
	Andrew Hill	Draft for client including requested changes	10 May 2019
	Kane Satterthwaite / Cushla Loomb	Final	5 July 2019

Document Acceptance

Action	Name	Signed	Date
Prepared by	**Tom Craigie/ Andrew Hill**		10/05/2019
Reviewed by	Kane Satterthwaite		10/05/2019
Approved by	**Cushla Loomb**		05/07/2019
on behalf of	Beca Limited		

Executive Summary

Western Bay of Plenty District Council engaged Beca to assess the existing seawall at Waihi Beach (including structural condition, expected life and any impacts on beach lowering, sediment transport and public access), the performance of dune enhancement undertaken to date and suggest some potential options that can be developed further with the community and built on when a long term vision for the coast is developed (in subsequent stages). The study area is from three-mile creek in the south to Coronation Park in the north.

Waihi Beach is a barrier beach - a narrow and elongated beach situated parallel to the shoreline that provides a barrier between the mainland and a remnant wetland. The wetland can be seen in the northern section of the beach at Coronation Park and acts as a buffer for separating residential development from the beach. Elsewhere the dune and wetland system has been reclaimed and replaced with residential development.

The Waihi Beach sediment system is highly dynamic due to cross shore and longshore sediment transport. As an active ocean beach system, the beach experiences onshore/ offshore movement of sand. During periods of high wave energy sand is transported from the intertidal beach offshore to form a bar. The offshore bar promotes wave breaking that dissipates wave energy subsequently reducing the erosion potential on the intertidal beach. During calmer swell dominated conditions (typically experienced in summer months) sand is transported back to the intertidal beach from the offshore bar. This process results in short-term changes to the beach profile (known as 'cut and fill' cycle).

The beach system is also subject to longshore sediment transport processes whereby sediment is transported alongshore as a function of the variation of wave energy along the shoreline and predominant wave direction. In the short term these effects are highly dynamic with a net longshore sediment direction to the southeast (towards Bowentown). Studies by Tonkin and Taylor have concluded that the sediment transport from the North into the Waihi Beach sediment cell is limited.

Longer term changes to the beach from sea level rise is likely to result in landward retreat of the intertidal beach as the beach system adjusts to the increased sea level and wave break closer to the shore. In response to coastal erosion a seawall approximately 1km long was constructed north and south of two-mile creek in 2011 to protect properties located on the dune system. At the date of the inspection (November 2018) the beach appeared to be in an accretional state. There was no observed scouring at the seawall toe during the site visit (noting again that the beach was in an accretional state).

Overall the seawall is performing adequately and is maintaining the bank crest line and level, which protects the properties behind. The seawall location is generally seaward of the former dune location hence there is loss of beach space and access along the beach at high tide. Based on observations the seawall does create a minor promontory system which is subject to higher wave energy compared to the adjacent unprotected shoreline. The rock quality appears adequate and there were no signs of rock splitting or weathering. During the site visit the presence of some undersize rock was observed on the crest which would be unstable in storm conditions. There is erosion of the land immediately adjacent to the shoreline at the southern and northern seawall terminations of the wall (commonly known as end effect erosion). The end effect erosion occurring at the southern termination of the southern seawall structure could be modified to reduce this erosion by constructing a 'tie back' of the hard structure with the adjacent land and burying the structure into the dune (noting this would be on private property). A preliminary engineering design and cost estimate has been provided for this work.

The functional life of the seawall can be considered long-term (i.e. 50-100 years) provided regular monitoring and maintenance is undertaken. However, we note that there is always a risk that a storm event or natural

hazard occurs which exceeds the design event and significant damage may result. It is also noted that although the seawall has an expected long-term life (with maintenance), observed erosion of the land at the ends of the structure and the coastal processes operating at the site mean that recession of the adjacent shoreline is expected to continue. In addition, with expected sea level rise, the dry beach area in front the seawall is expected to be lost over time, restricting public access along the beach.

Based on observations the coastline between Flat White Café and the northern seawall termination appears to be actively receding, resulting in a further loss of the dune and seafront property. The vertical scarp is very close to the high tide zone. Extension of the seawall is an option, however, this will limit public access along the beach during high tides (in a similar way to the existing structure as described above). Dune enhancement was attempted in this location but failed as the enhancement was within the active beach (high tide line) and a storm is reported to have occurred immediately after the sand was placed, removing it offshore. It is unlikely that further dune enhancement under the existing consent would provide protection to beach front properties from further recession in this location, particularly if sea levels rise as predicted.

The dune system adjacent Coronation Park is functioning well. The barrier dune is planted with established vegetation, which is trapping windblown sand thereby supplementing the dune. There appears to be adequate berm width between the high tide contour and the dune, contributing to the success of the dune enhancement in this location. A post and rope fence with signage warns people not to enter and damage the planted dune area.

There are a number of potential options for the long term management of the coast depending on what the objective or 'vision' for the coast is (i.e. to protect private properties, or to maintain a sandy beach area for public access). Future work is required to develop a vision for the beach and assess options for the coast based on a long term coastal hazard strategy developed with the community. This is suggested as part of future work.

Contents

Appendices

Appendix B – Aerial Photographs

Appendix C – Tonkin & Taylor Seawall Construction Drawings and Beach Profile Monitoring Cross Sections

Appendix D – Preliminary Engineering Design for Southern Seawall, southern termination end effect erosion

Appendix E – Cost estimate for Southern Seawall, southern termination end effect works

1 Introduction

1.1 Location

Waihi Beach is a barrier beach north of Matakana Island in the Western Bay of Plenty District as shown in Figure 1. It is approximately 8.8 km long from Bowentown in the south to Beach Road in the north and is a popular recreational beach. Two seawalls were constructed in 2011 at Waihi Beach (refer to Figure 2):

- The northern section – starting at 43 Shaw Road, and finishing at 3 Edinburgh Street (590m)
- The southern section – starting at 7 Ayr Street, and finishing at 34 The Loop (390m).

Figure 1 - Waihi Beach – Western Bay of Plenty (source: Google Earth)

1.2 Study Extent

The extent of the study area is from Three-Mile Creek in the southwest to Coronation Park in the North West (Figure 2).

1.3 Purpose of Report

Western Bay of Plenty District Council (WBoPDC) has engaged Beca assess the existing seawall at Waihi Beach (including structural condition, expected life and any impacts on beach lowering, sediment transport and public access), the performance of dune enhancement undertaken to date and suggest some potential options that can be developed further with the community and built on when a long term vision for the coast is developed (in subsequent stages). This report addresses the following items:

- An assessment of the performance of the seawall in holding the shoreline in a static location
- An assessment of the structural integrity of the seawall
- The effects of the seawall on beach lowering

- The effects of the seawall on sediment transport
- The effects of the seawall on public access to and along the coastal marine area
- The likely functional life of the seawall structure
- The effectiveness of dune enhancement at the northern end of Shaw Road in mitigating coastal erosion effects.
- List of potential options

It is noted that no consultation has been included in the Beca scope of works. The report also therefore suggests future work to develop a long term coastal hazard strategy with the community so that options can be assessed against a vision for the coast and clear objectives.

Figure 2 – Seawall and Dune Rehabilitation Areas including report section references

1.4 Brief History of Waihi Beach Protection Works

Review of previous strategy and protection works at Waihi Beach was undertaken to provide context. We have collated aerial imagery from online tools and the raw images are included in Appendix B.

Development at Waihi Beach commenced in the early 1900s as a recreational area for the Waihi miners. In 1930 cuts were made to the beach to drain the back-land swamp area (now referred to as Two-mile and Three-mile Creeks). In 1948 subdivision work commenced at Shaw Road. Harray and Healy [1] noted that in the 1960s buildings were moved back from frontal dunes in response to dune recession and that in the 1970s various types of beach protection were constructed, including vertical semi-permeable seawalls (steel and timber), rock backfill to vertical walls, rock riprap and gabion baskets.

In response to ongoing beach recession and potential loss of property and buildings, seawalls were constructed in 2011, north and south of Two-mile Creek.

Table 1 provides commentary on high-level works and subsequent changes to the Waihi Beach coastline that have occurred over time with specific reference to the section spanning from Coronation Park to Three-mile Creek (study area).

Table 1 - High-Level Review Coastal Change

Period	Area of Interest	High-Level Coastal Change
1942-1963	- Two-Mile Creek - Three-Mile Creek - Coronation Park	- Training walls established at either embankment of Two-Mile Creek. - Watercourse has been realigned to allow for waterfront housing to be established south of Three-Mile Creek. - Beachline appears to have receded further into Coronation Park, at Oceanview Road access.
1963-1969	- Two-Mile Creek - Three-Mile Creek	- Outfall section beyond training wall has realigned to run in parallel to the wall, as opposed to the previous established angle (1963). - Substantial vegetation south of Three-Mile Creek Mouth is noted.
1969-1974	- Three-Mile Creek	- Property development on area of previous vegetation.
1974-1982	No change of note from aerial photos.	
1982-1986	- Three Mile Creek	- Further housing establishment south of Three-Mile Creek. - Watercourse near highwater mark noticeably tracking north.
1986-1991	No change apparent from aerial photos. Section at 67A Shaw Road is notably close to beachline.	
1991-2005	- 45 Shaw Road - Two-Mile Creek - 10 The Loop - Three-Mile Creek	- Establishment of rock bunding apparent, extending south. Finishes at 95 Shaw Road. - Rock deposited at the southern bank, from 1 Seaforth toward the shoreline (~40m). Appears to have re-established previous watercourse at outfall. - Establishment of rock bunding apparent, extending south. Finishes at 36 The Loop. - Establishment of rock bunding apparent.
2005-2010	- Shaw Road - Rock bunding - Two-Mile Creek	- Evidence of training groynes placed along sections of the beach. - Further rock build-up is noted in areas outlined during 2005. - Watercourse below highwater mark is tracking north to 26 Shaw Rd.
2010-2016	- Dune Enhancement - Seawall - Two-Mile Creek	- Dune enhancement constructed in June 2011 and was completely washed away from a storm event. - Seawall established October 2011, spanning further south to 3 Edinburgh Street. - Significant clearing and straightening works occurred, over and above routine maintenance (ranging from 40m^3 to 250m^3).

Period	Area of Interest	High-Level Coastal Change
	- Three-Mile Creek	- ElcoRock sand bag embankment solution has straightened the outlet alignment. - Significant clearing and straightening works occurred, over and above routine maintenance (ranging from 40m^3 to 200m^3).

1.5 Resource Consent

Resource Consent No. 62912 (SAR-03-36-05-05) was granted by the Minister of Conservation to Western Bay of Plenty District Council (WBoPDC) on 26 April 2008 for coastal works at Waihi Beach.

The Resource Consent permits WBoPDC to:

- *"Erect a Rip Rap Revetment Structure in, on, under or over the Foreshore and/or Seabed;*
- *Disturb Foreshore and/or Seabed as a Result of Beach Scraping and Site Preparation; and*
- *Deposit Material in, on or under Foreshore or Seabed; and Occupy Space in the Coastal Marine Area."*

Condition 13 of that consent requires the consent holder (WBoPDC) to undertake comprehensive investigations prior to 31 December 2020 to determine the best practicable option for the long term management of the coastal hazard risk a Waihi Beach. The development of the best practicable option for the coast should be determined following development of a long term strategy for the coast and in conjunction with the Waihi Beach community. This is a future suggested stage of work.

1.6 Structure of Report

The following sections are included in the report:

- Section 2 - Coastal Processes Background
- Section 3 - Site Visit Observations
- Section 4 - Effectiveness and Impacts of the Protection Measures
- Section 5 - Potential Beach Protection Options
- Section 6 - Future suggested works.

1.7 Existing Information Reviewed

Existing information was provided by WBoPDC, and the following documents were reviewed in preparing this report:

- Cadastral boundaries – Mapi [WBoPDC]
- Historical aerial photos – Mapi [WBoPDC], RetroLens
- Western Bay of Plenty District Council, *Contract No. 09/1018*, March 2009
  - 851225.001-07 Rev A
  - 851225.001-13 Rev A
  - 851225.001-21 Rev A
- Tonkin and Taylor, *Assessment of Beach Levels*, July 2011
- Tonkin and Taylor, *Beach Level Surveys,* February 2011 – April 2013
  - Drawing 851630-A04
  - Drawing 851630-A05
  - Drawing 851630-A07
- Tonkin and Taylor, *Coastal Profile - Dune Enhancement Survey,* May 2013
- Tonkin and Taylor, *5 Yearly Monitoring*, 13 January 2015

- Resource Consent No. 62912 (SAR-03-36-05-05), 26 April 2008

2 Coastal Processes Background

Waihi Beach is a barrier beach. Barrier beaches are narrow and elongated beaches situated parallel to the shoreline. The beach is the northern most section of the long sandy beach system in the Bay of Plenty. Further north the coast is rocky with occasional pocket type beaches. The beach provides a barrier between the mainland and adjacent nearshore wetland. A remnant of the wetland can be seen in the northern section of the beach at Coronation Park which acts as a buffer for separating residential development from the beach. Elsewhere the wetland system has been reclaimed and replaced with residential development.

A sand beach such as Waihi Beach exists because there is a balance between the supply and removal of sand. If a beach profile appears unchanged that does not necessarily mean its static (no new sediment added or old sediment removed). Often it represents dynamic equilibrium where the supply of new sand equals the removal of old sand. The beach is continually changing but appears unchanged as it remains in balance. Therefore when a beach profile begins to change the transport of sediment in and out is out of balance. Single violent events may alter a beach such as a great storm or a landslide. In either case the beach changes because of changes in sediment supply, transport and removal.

Waihi Beach undergoes many changes over different timescales including years, seasons and daily (in response to storm events). As an active ocean beach system, the beach experiences onshore/ offshore movement of sand. During sea storms sand moves offshore to form a bar which helps to protect the beach. Subsequent swell conditions move the sand back into the intertidal beach system. This process, sometimes referred to as diabathic transport or the 'cut and fill cycle', results in short-term changes to the beach profile. Observations and investigations to date indicate that large volumes of sand move within the nearshore beach-dune system in response to changes in wave conditions.

Harray and Healy [1] noted that the predominant littoral drift direction on Waihi Beach is south eastwards towards Bowentown and that the littoral drift from the north is not supplying much sediment. The Harray and Healey study concludes that it is this lack of littoral sediment supply from the north that is essentially causing the erosion problem at Waihi Beach. Bear [2] investigated sediment transport rates which indicated that littoral drift was bi-directional at northern Waihi Beach, but littoral drift was south easterly in the location of the study area. Bear [2] concluded that the net south easterly drift was the major contributor to net erosion in the study area as longshore transport of sediment exceeded the supply to the beach from diabathic movement of sediment onshore. Approximately 115,000 m^3 of sediment was estimated by Bear [2] to be moving within the defined northern Waihi Beach littoral cell during the study period (2007-2008). Bear derived a sediment budget showing a net deficit of sediment of approximately 36,000 m3/year or -8 m3/year during the year commencing November 2007.

Records show that beach recession has been significant since the 1950s. Harray and Healy [1] recorded that the mean retreat of the high water mark at Shaw Road between 1951 and 1968 was 49.2m and the dune system near the surf club was once up to 30m high.

In previous studies, Tonkin and Taylor Ltd [3] has noted the following coastal process affecting Waihi Beach.

- The Waihi Beach shoreline is considered to fluctuate between periods of accretion and erosion, based on beach profile information. During fair weather conditions a long period low wave height environment assists in producing shoreward movement of sediment, resulting in an accumulation of sand above the high tide mark as a beach berm. Over time, as the beach width increases, vegetation establishes and traps wind-blown sand and the dune toe extends seaward (accretion)
- During storm events, the combination of raised sea level and steeper waves results in an offshore movement of sand (erosion). Sand is lost from the beach and dune face with the sand moving offshore to form bars in the sub-tidal area of the beach. Soon after the peak of the storm passes and wave steepness reduces, onshore movement of sand occurs and the cycle repeats

- In a La Nina climate cycle, an increase in easterly winds and waves and increased frequency of storm/ cyclone events is expected
- Future shoreline movement may differ from historic trends due to climatic patterns associated with Inter-decadal Pacific Oscillation (IPO) and global climate change. Since 1999, La Nina conditions have dominated in the negative IPO phase. The negative IPO phase is expected to last for at least the next decade. During these conditions the local relative sea level is expected to rise and there is likely to be an increase in severe onshore wave storms. More frequent episodes of shoreline movement are expected during these conditions, as experienced in June 2011
- Every 18.6 years a tidal cycle occurs where tides are higher. At times of upper level tidal cycles, records indicate significant erosion has occurred at Waihi Beach.

3 Site Visit Observations

3.1 General Observations

On 19 November 2018, a site visit was conducted by Beca engineers and planners. Refer to the site visit report (Appendix A) for detailed observations.

The northern and southern seawalls (separated by Two-mile Creek) were inspected, and measurements of profile dimensions and rock sizes were taken at random locations. The northern seawall is approximately 600m long and the southern seawall is approximately 400m long. The depth of the toe cannot be ascertained from visual inspection. Several landowners have constructed steps down the seawall by way of strategic rock placement, of similar shape and size to the existing seawall rock revetment.

There are formalised public access points to the beach, with substantial access structures, constructed at intervals along the length of the seawall (Figure 3).

Figure 3 – Seawall showing accretion at seawall toe and a public access structure over the wall

At the date of the inspection the beach appeared to be in an accretional state – refer to Figure 3. There were no instances of scouring at the seawall toe, though it should be noted that sand migration is seasonal and movement of sand to offshore bars would be expected in winter months or during storm events. This seasonal sand movement was confirmed by Kelvin Hill (WBoPDC) who noted that that the toe of rock armouring is sometimes exposed during winter months.

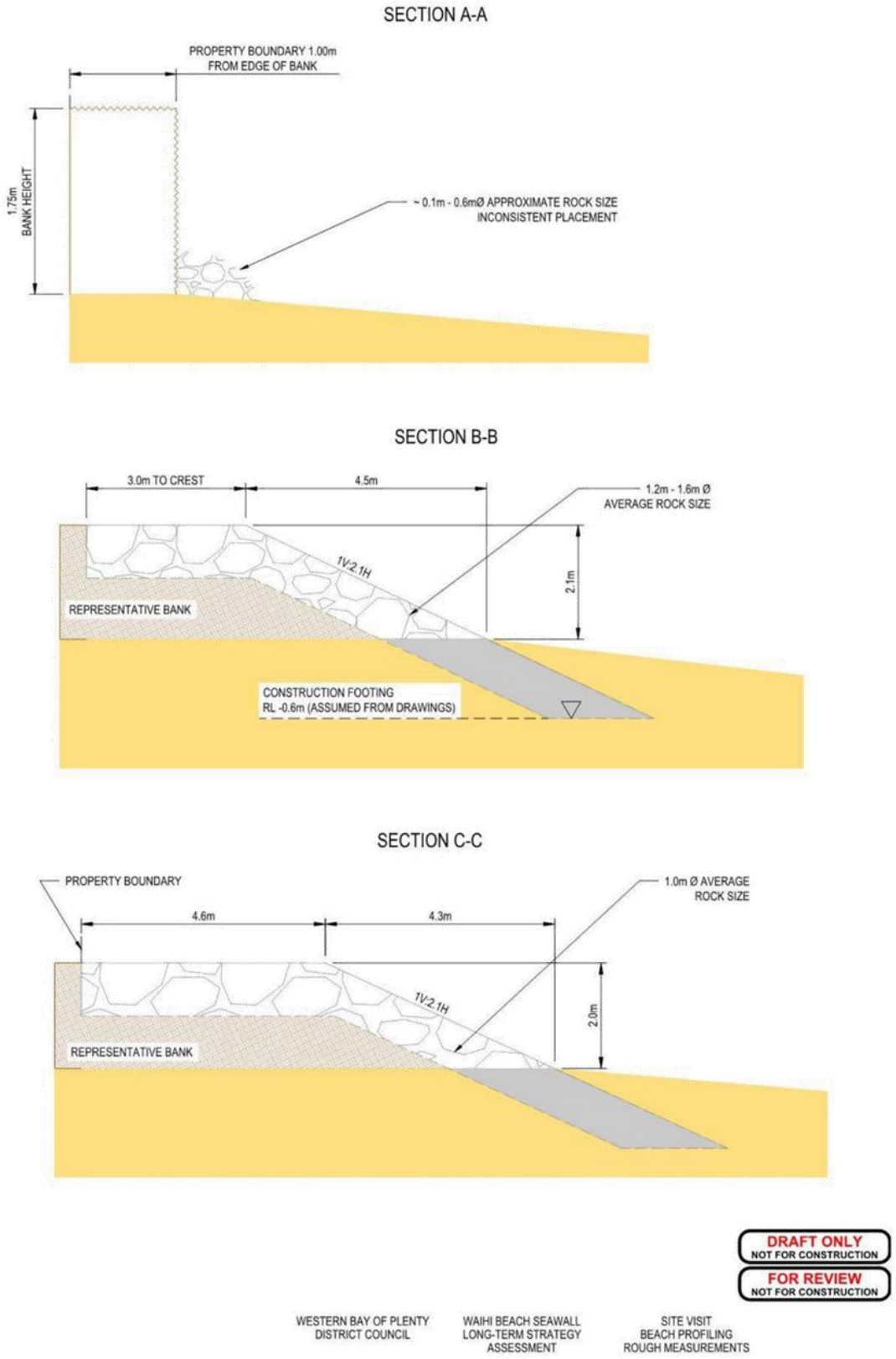
Smaller-sized rock approximately between 0.3 - 0.4m Ø was observed on the crest section which would be outside the lower limits of the riprap grading. Such rocks, which are not well interlocked, would be unstable in wave overtopping conditions.

Two at-risk areas were identified; being the northern and southern seawall terminations. These areas are at risk of further erosion and these terminations are discussed in the following sections.

Figure 4 and Figure 5 show a plan and cross section information recorded from the site visit including existing measurement.

Figure 4 - Beach Profile Locality Plan

Figure 5 – Beca Seawall Rough Measurements based on Site Visit 19/11/2018)



3.2 Northern Seawall Termination to Flat White Café

The bank slope is generally vertical and approximately 1.8 – 2.2m high, with sporadic inclusion of buried construction debris (Figure 6). The top of the bank line meanders inside the property boundary in many cases and the crest line shows active areas of erosion.

From 2011-2013 there was regular beach profile monitoring. This indicated that the dune embankment had a slope of approximately 1V:1H during 2011-13. Although no profile measurements were taken as part of the site visit, the dune material is observed to have eroded to a vertical face.

Figure 6 – Vertical bank littered with buried construction debris (Section A-A)

3.3 Northern Seawall

3.3.1 General

The rock armour appears to be stable and the average rock size diameter is 1.2 - 1.6m Ø. There are no signs of erosion at the crest. There is a minor quantity of small rock on the seawall crest which is undersize for typical riprap grading.

3.3.2 Northern Seawall Termination

The northern seawall termination at the northernmost end (refer to Figure 7) does not currently have an adequate transition to the dune system. There is also a walkway located at the transition formed by sand bags (Figure 7). Minor erosion is observed at the rock/ dune interface and there are only scattered rocks at this location. The rock should be replaced in this location to protect against potential outflanking and vegetated sand placed over the buried rock in this location. It is possible for these minor works to be undertaken as maintenance works in accordance with condition 10.1 of the resource consent[1].

The northern seawall transitions into the Two Mile Creek training wall structure at its southern end with some rocks and a well vegetated dune area behind which provides continuous protection of the properties behind in this area (Figure 8).

Figure 7 - Northern Seawall Northern Termination

[1] Subject to confirmation with Bay of Plenty Regional Council as Consent Authority.

Figure 8 – Two mile creek showing rock training walls and northern seawall transition (red circle)

3.4 Two-mile Creek

The northern seawall ties into Two-mile Creek and rock protection continues up the creek. On the southern bank (true right) of Two-mile Creek, a seawall extends approximately 50m onto the beach before transitioning to a dune system. The dune system appears to be effective, with consistent vegetation present aside from beach access lanes.

At the termination of the southern rock training groyne (refer to Figure 10) there is an unvegetated sand bank approximately 20m in length which appears to be used as a pedestrian accessway or small boat ramp onto the beach. There is no vegetated dune in this location and this means this area may be particularly susceptible to erosion in the future. Vegetation in this area will assist in stabilising the dune and so WBOPDC may consider planting as a priority in this location.

Figure 9 – Two-Mile Creek Mouth

Figure 10 - Beach Access and Dune Tie-In (red circle)

At the Two-mile creek outlet location there is sand build up between the north and south training walls. Sand in this area is subject to the normal accretion and erosion cycles as well as the flushing ability of the creek. Due to low creek velocities for the majority of the year the flushing capability of the creek (i.e. the ability to scour and transport sand built up) is low which may result in the need to excavate sand from the channel of the creek from time to time to prevent back up of creek waters.

3.5 Southern Seawall Observations

3.5.1 General

The seawall terminates ~100m north of Three-mile Creek, and transitions to a dune system. Where the rock terminates there is some erosion of the dune face observed, typical of transitions from hard structures to soft

unprotected shoreline. The end effect erosion at this transition is more apparent at the southern end of the southern seawall (see Section 3.5.2 below)

The rock armour appears to be stable and the average rock size diameter is 1.0m Ø. There are no signs of erosion at the crest. There is a minor quantity of small rock on the seawall crest which is undersize for typical riprap grading. There is a pedestrian thoroughfare running parallel and adjacent to the crest of the seawall – refer to Figure 11.

Approximately mid length the seawall is constructed around a boat ramp which is located at a property along The Loop. This is a potential weak point and wave attack may undermine the concrete ramp in the future.

Figure 11 - Pedestrian Walkway Parallel to Seawall Crest (Section F-F)

Figure 12 in the fore area of the photo shows a zone where rock interlocking and placement could be improved.

Figure 12 – Seawall Condition and Slope (Section C-C)

3.5.2 Southern Seawall Terminations

The terminations (both northern and southern) of the southern seawall are not well constructed (Figure 13a and Figure 13b). There is minor end effect erosion observed at the northern termination (Figure 13a) and more significant end effect erosion at the southern end (Figure 13b). Seawall terminations will always need maintaining and natural beach processes may continue to result in recession of the dune profile outside the seawall zone.

Given the minor nature of end effect erosion at the northern termination of the seawall, maintenance in the form of placing rocks back at the termination of the seawall could be undertaken and this is unlikely to require resource consent[2].

The dune bank at the southern termination is actively eroding and vegetation is slipping from the top of bank and geotextile is exposed approximately 5m from the end of the seawall. Typically, the rock would extend landward and be buried by vegetated sand material to mitigate against potential outflanking. Such work would involve excavation of the dune, rock placement, sand replacement and planting. It is not clear whether such an arrangement was originally constructed or part of the consented design. It is possible these works could be considered maintenance under condition 10.1 of the resource consent[2]. However, given the more substantial nature of the works, it is suggested that this is confirmed with the BoPRC prior to any work.

If this termination area is to be addressed, we would recommend a design such as the preliminary engineering design included in Appendix D to this report. An indicative assessment of the capital cost requirements of the seawall termination works based on the preliminary engineering design is included in Appendix E. We note that, if the works are to go ahead, a topographical survey would need to be completed and discussion and agreement reached with landowners (as works may extend into private property).

[2] Condition 10.1 of the resource consent allows maintenance of the rock revetment structure to maintain it in a safe and structurally sound condition

Figure 13a - Northern Termination of the Southern Seawall (red circle shows minor end effect erosion)

Figure 14b - Southern Termination of the Southern Seawall (red circle indicates more significant end effect erosion)

3.6 Three-mile Creek

Sandbag training groynes have been established at the mouth of Three-mile Creek in the form of ElcoRock sand bags. The dune behind the groynes on both northern and southern extents of the creek appears to be stable. One reason for the stability is that the dunes are set back well above the high tide line and therefore will not be subject to wave attack frequently.

There is also apparent sand build up either side of the training walls providing localised increased beach volumes that provide an increased erosion buffer for the backshore area (Figures 15 and 16). This accumulation is not unexpected particularly over moderate time scales for shorelines that are dynamically stable with close to zero net littoral drift. In these situations sediment accumulates either side of the walls until it is bypassed, either over the top of the walls or around the seaward toe of the training walls. The sediment volumes accumulated either side of the training walls are likely to be highly dynamic during short term storm events, ranging from sedimentation to lee side erosion. Sediment deposited in between the training walls is either scoured during creek discharge events and deposited at the lower beach or, during periods of low flow where there is insufficient sediment transport potential, sediment is likely to accumulate requiring ongoing removal. WBOPDC have a resource consent to undertake this periodic removal of sand and this will need to continue to keep a channel open for the creek. The durability (life) for geosynthetic material can be expected to be 20-30 years. Damage to bags from sharp objects (particularly through vandalism) will necessitate replacement of the affected bags periodically to maintain groyne integrity.

Figure 15 - Three-mile Creek Mouth

Figure 16 – Sand Build-up at Southern Groyne

4 Effectiveness and Impacts of the Protection Measures

4.1 Performance of the Seawall

Overall the seawall is performing adequately and is maintaining the crest line and level, which protects properties behind. The beach appeared to be in an accretional state and sand was buried up against the lower section of the seawall at the time of the site visit. In an erosive cycle, we understand that beach sand is removed at the toe and the integrity of the seawall will then rely upon having the toe deep enough to mitigate against undercutting. The construction drawings indicate the toe is built to between -0.6m and 0m MSL which was not able to be verified during the visual inspection.

The southern and northern seawall terminations are not tied back into the coastline and as a result erosion is occurring in these locations. We recommend that the hard structure is returned landward and buried into the dune in these locations. An overlying smoother transition zone comprising sandbags and/ or vegetation would provide a better lead into the natural dune system.

The seawall location is generally seaward of the former dune location hence there is loss of beach space and public access along the beach at high tide. Typically the presence of the seawall in the active beach zone will create a minor promontory system and focus of wave energy. The alternative would have been to construct the seawall further landward and encroaching onto private properties (such as a back stop wall, see Section 5.1).

The rock quality appears adequate for the energy of the site. There were no signs of splitting rock or deeply weathered rock. We did observe the presence of some undersize rock on the crest which would be unstable in storm conditions. In some isolated locations, the rock armour interlock and placement could be improved – this is not a major issue and could be improved when general maintenance is undertaken.

The area between Flat White Café and the northern seawall termination appears to be actively receding, resulting in a further loss of the dune and seafront property. The vertical scarp is very close to the high tide zone. Extension of the seawall is an option, however, this will limit beach access at high tides. An alternative is to construct a rock backwall and overlying dune, however, there is limited horizontal width to allow wave dissipation and minimise wave runup on the dune.

4.1.1 Beach lowering

WBoPDC have requested an assessment of beach lowering that may be caused by the seawall structure. Beach lowering due to hard erosion protection structures such as seawalls is well documented (T & T). Seawalls interfere with natural beach processes by removing access to the sand reserves stored in beach ridges and dunes behind the seawall. As sediment is no longer available during periods of high wave energy, which transports sediment offshore, sediment is sourced from the intertidal area fronting the seawall and from adjacent unprotected beach areas. In the short term the effects of this process are difficult to discern in terms of beach levels apart from local scour fronting the revetment and end effect scour.

During periods when beach levels are low that result in direct wave action on the revetment, the revetment promotes wave reflection which in turn enhances the wave energy promoting scour. With increasing water depth at the toe of the revetment the higher the wave energy and sediment transport. In the short term this results in revetment toe scour which is often restored during periods of calmer weather that promote the onshore transport of sediment.

It is important to note beach lowering happens on such a wide range of time scales and space scales that the entire process cannot reasonably be modelled in a single numerical or conceptual model (HR Wallingford

Report SR 633, 2003). The HR Wallingford Report SR 633 (2003) also noted that interaction between beaches and seawalls are extremely complex and Kraus and McDougal (1996) found that seawalls have not been proven to actively cause wide scale beach erosion in the short term. However, seawalls do promote localised scour from hydrodynamic processes including wave reflections, currents, groundwater flows, and permeability changes. The existing seawall is a sloped rock revetment and this type of structure has been shown to dissipate wave energy and reduce wave reflection more than a vertical, solid structure which reduces the potential for beach lowering.

Longer term changes to the beach from sea level rise is likely to result in landward retreat of the intertidal beach as the beach system adjusts to the increased sea level. For Waihi Beach, should the revetment be maintained in its current position the revetment will likely form a promontory as the surrounding shoreline retreats. In order to maintain equilibrium sediment volume sediment along the beach it is likely that sediment will be sourced from the adjacent unprotected shoreline areas to address the sediment that is locked in the revetment lee.

The actual beach lowering caused by the Waihi seawall is not able to be accurately determined as the natural variations in beach profile are over large timescales and the seawall has only been present for 8-9 years. Any direct changes by the seawall on beach lowering is therefore masked by large natural variations in beach level.

There are three long term beach profile monitoring sites in the vicinity of the seawall:

- Off Mako Ave (south of the seawall)
- Off the Loop – adjacent to the seawall
- Off Hinemoa Road (north of the seawall.

Beach profile data from Waihi beach shows the beach level was near to the lowest on record in 2011 (T&T). A storm event in June 2001 exposed previous erosion protection works (old seawall and gabion basket groynes constructed in 1969) showing again how beach levels were very low at that time.

Tonkin and Taylor monitored beach levels along sections of Waihi Beach from February 2011 to April 2013. Beach levels for section A-A (DWG851630-A04) were fairly similar. The only profile that stood out was collected in April 2012, where the beach level appears much lower but by April 2013 the beach level had lifted around 0.4m. Section B-B (DWG851630-A05) lacked 2011 data. However, from April 2012 to February 2013 the beach lifted around 1m and then by April 2013 it had lowered 0.3m. This section is most likely showing the natural variation of sand coming in and going out but has no clear signs of beach lowering. Section C-C (DWG851630-A07) showed no major or visible change in the beach morphology over the monitoring period. Based on the 3 drawings there is no clear indication of beach lowering occurring. However, the data is limited and only has a timescale of 25 months which is very short in the coastal process timescale. 25 months is not long enough to see any clear signs of change to the beach profile, other than perhaps the scour occurring at the termination of the seawall. More data over a longer period of time needs to be collected to truly determine if the beach morphology is changing due to the presence of the seawall.

4.1.2 Sediment transport

Sediment transport is the movement of organic and inorganic particles by water. In general, the greater the flow the more sediment that will be moved. The flow force can come from many natural forces such as wind, tides, waves, ocean currents and river flow. Generally the further a particle travels from its source the finer it becomes due to weathering.

Sediment transport is a natural process that has been occurring throughout geologic time and will continue to do so. There are two main types of sediment transport in the coastal zone:

- Onshore transport: Caused by waves moving towards the beach that produce a current in the surf zone that moves water onshore and along the beach. This current transports sediment towards the shore.
- Longshore transport: Caused by wave patterns that do not approach the shore parallel to the beach but strike at an angle (very common). This pattern sets up a longshore shore current that transports sediment along the beach

When a seawall is introduced into a coastal zone the biggest problem it poses is that natural processes such as wind or erosion can no longer access the sediment behind the wall. Consequently only the sand between the wall and water level can be moved by natural longshore sand transport. However, if the sand behind the wall was never a part of the dynamic equilibrium (sand in, sand out) the beach should remain unchanged.

Seawalls may also act as promontories if they are in the active beach zone. The Waihi Beach seawall is in the active beach zone with high tides reaching the base of the structure. As predicted sea level rise occurs the wall will be in the active beach zone more frequently. Promontories, such as groynes (or in this case, a seawall structure in the active beach zone), interrupt along shore sediment movement and can cause accretion on the updrift side and erosion on the downdrift end. As littoral drift volumes are limited on Waihi Beach it is not expected that the seawall will cause a major interruption to sediment transport.

4.1.3 Public access

The New Zealand Coastal Policy Statement (Objective 4) requires the maintenance and enhancement of the public open space qualities and recreation opportunities of the coastal environment by:

- recognising that the coastal marine area is an extensive area of public space for the public to use and enjoy;
- maintaining and enhancing public walking access to and along the coastal marine area without charge, and where there are exceptional reasons that mean this is not practicable providing alternative linking access close to the coastal marine area; and
- recognising the potential for coastal processes, including those likely to be affected by climate change, to restrict access to the coastal environment and the need to ensure that public access is maintained even when the coastal marine area advances inland.

Seawalls can limit public access to and along the beach if they are not designed in a way to facilitate safe access over the structure. The existing seawall has been constructed with formalised public access points from the land to the beach at intervals along the structure (Figure 3). Private property owners have also established their own access over the structure in certain locations. In some instances this has been achieved by filling the gap between the private property and the seawall with concrete to achieve a level platform and by placing smaller rocks on the face of the seawall to create steps down to the beach. It is noted that some properties would need to use nearby public access points rather than gain direct access to the beach as they would have been able to do prior to the construction of the seawall. Given the seawall fronts private properties it is considered that public access from land to the beach has remained relatively unaffected by the structure given the formalised access points established.

However, the seawalls location in the high tide beach area is limiting public access to a dry beach area at high tides as water levels reach the base of the structure. This means it is not possible for the public to walk along the beach at high tide in the vicinity of the seawall and not get their feet wet. Over time, as a sea level rises (and if beach lowering occurs, see previous section), it is expected that the periods of available dry beach in front the seawall for public access along the shore will become less frequent.

4.1.4 Functional Life of the Seawall

The functional life of a seawall can be long-term (i.e. 50-100 years) provided regular monitoring and maintenance is undertaken. However, we note that there is always a risk that a storm event or natural hazard (e.g. Tsunami) occurs which exceeds the design event and significant damage may result.

There are several aspects that need to be considered for the Waihi seawall related to functional life:

- Weathering and splitting of rock – monitor over time and replace rocks as necessary
- Undersize or relocated rock – replace as necessary
- Sea level rise and increased overtopping – raise the crest level in stages. This will result in a crest width reduction and/ or landward extension of rockwork
- Undercutting at seawall toe – extend toe deeper in affected sections.

4.2 Performance of the Dune Enhancement

4.2.1 Coronation Park

The dune system adjacent Coronation Park is functioning well – refer to Figure 17 and Figure 18. The barrier dune is planted and trapping windblown sand thereby supplementing the dune. The park area behind the barrier dune is likely to be an old marsh or swamp remnant. There appears to be adequate berm width between the high tide contour and the dune. A post and rope fence with signage warns people not to enter and damage the planted dune area.

Figure 17 - Barrier Dune Adjacent Coronation Park – View North

Figure 18 - Planted Barrier Dune – View South

4.2.2 Dune enhancement between Shaw Road and Glen Isla Place

Dune enhancement was also carried out between Shaw Road and Glen Isla Place. Sand for the dune enhancement was sourced from offshore maintenance dredging from Two and Three Miles Creeks and from beach scraping. Following storm events the beach underwent a dramatic correction, resulting in the beach lowering by 1.0m and erosion of the new dune enhancement and existing dune. The erosion resulted in historic beach protection measures, comprising poorly graded undersized rock, timber and steel retaining structures and gabion baskets groynes, being exposed. The recommendation from T&T was to remove the timber and steel retaining structure and gabion baskets, however, to leave the existing rock in place.

Figure 18: Dune enhancement between Two Mile Creek and the Southern Seawall

5 Potential Coastal Erosion Options

5.1 General

The following section outlines some high level potential physical options for management of the coastal hazard risk. The choice of option or options for coastal management at Waihi Beach will depend on the overall objective/vision for the coast. For example, if the objective is to protect landside infrastructure/property, then the options that may be appropriate will be different from the options if the objective is to maintain a dry beach at high tide and beach amenity.

The diagrams provided below are generic and intended to assist with an understanding of some potential options rather than providing any design specifics, scale, etc. Future work is outlined in Section 6 and includes developing a vision for the coast and developing a list of potential options further through consultation with stakeholders and the community.

1. Maintain Status Quo: This option is essentially a continuation of the existing situation that has been established for the last 10-15 years. It involves the maintenance of the existing structure including patch repairs as needed– to achieve effective interlock and filling of voids and repair relocated rocks after storm events or replace weathered rocks. Ongoing monitoring would be required and wave overtopping of the structure would become more frequent as sea levels rise. It is expected that end effect erosion of the adjacent unprotected shoreline would continue (as described in sections 3.3.1 and 3.5.1, especially with predicted sea level rise) and that ongoing repairs may be needed to remedy this. It is likely that minor patch and end effect repairs could be undertaken in accordance with the existing resource consent for the seawall (i.e. no new resource consents would be required for the term of the existing consent). This would need to be confirmed with the Regional Council as Consent Authority. Dry access along the beach is expected to be further restricted in the future, eventually removing public access along the beach at all stages of the tide.

2. No hard protection structures. This option would involve removing the seawall at the end of its consented period and letting nature take its course. This option means that erosion of beach front properties would occur as there would be no hard protection.

3. Soft engineering. This would include removing the existing seawall, managing use and development of the land to minimise risk to dwellings, WBOPDC eventually purchasing beach front properties at market value or relocating (as risks become too great or unacceptable), removal of dwellings and reinstating the dune system. This option involves major disruption to private property owners and would require alternative sites to be identified and purchased for future relocation, potentially land rezoning, and dune replenishment/planting. Public infrastructure such as the Coronation Park carpark and roads would eventually be at risk and beach front infrastructure lost over time.

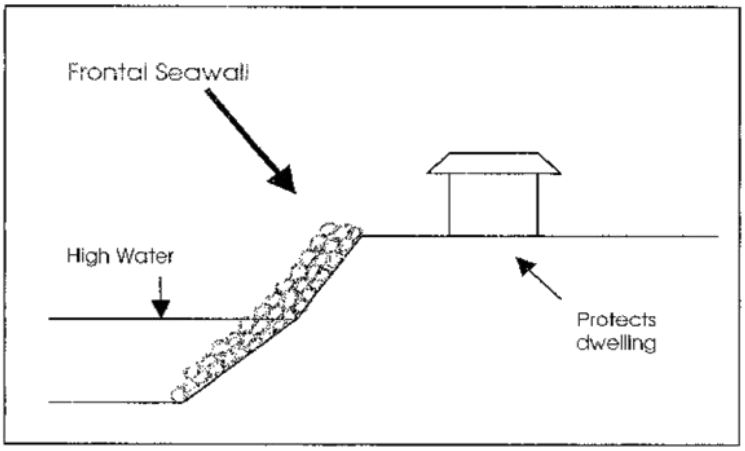
4. Dune enhancement. This would involve removing the hard structures along the shore and shaping the coastline and replenishing with sand reserves above the high tide line, followed by planting to stabilise the dunes. In order to be effective, the foreshore would need to be reshaped and replenishment occur above the high tide mark and so it is envisaged that works on private property would be required. To be effective the dune planting would need time to establish and so access over the dunes from private properties or by the public would need to be restricted. Fencing and signage could be used to achieve this in a similar way to the dune enhancement adjacent to Coronation Park.

   Council have an existing consent for dune enhancement and have requested a consideration of the continued operation under that consent as an interim, short term option for the section of coast between

the northern termination of the seawall and Flat White Café/Elizabeth Street. Section 5.2 outlines the considerations of that approach.

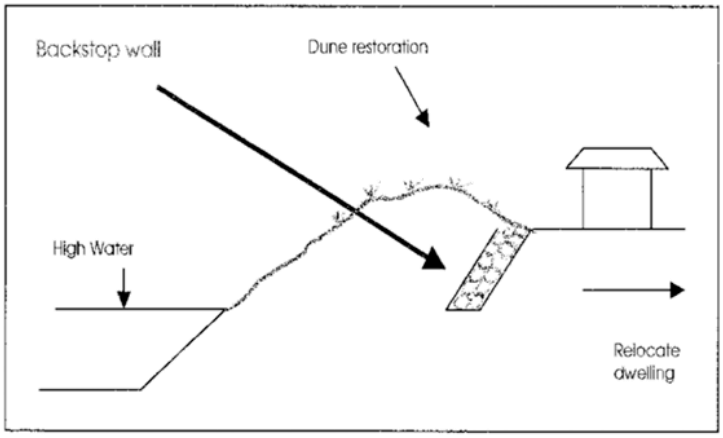
5. Modify the existing seawall. This would be for the purpose of minimising end effect erosion and would consist of constructing end wall transitions at the southern and northern seawall termination points. This upgrade item can be undertaken independently or in conjunction with patch repairs (option 1). A suggested preliminary engineering design for the more significant end effect erosion at the southern termination of the southern seawall is provided in Appendix D. Any modifications to the existing seawall structure that are in line with the originally consented structure may be considered within the existing resource consent and therefore potentially not require a variation or new consent from the Regional Council[3].

6. Extend the seawall north to the Flat White Café. This may require work on private property. This option will narrow the available beach area for public use especially at high tide and will eventually reduce the area of dry beach for public enjoyment. It will provide protection to beachfront properties owners but will require maintenance. Resource consents would be required for the new, extended section of seawall.



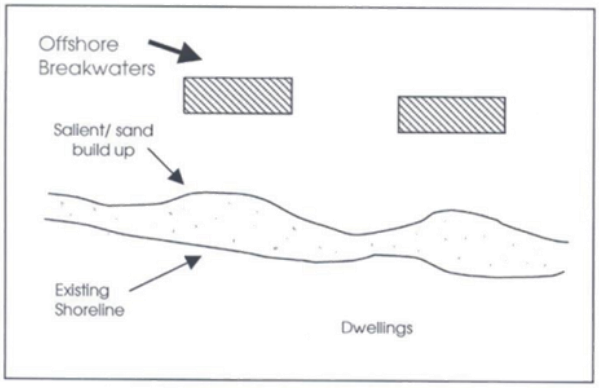
7. Backstop wall. This option involves removing the existing seawall and redevelopment of the site by constructing an engineered wall located sufficiently far enough landward (approx. 10-20m) so that the wall is buried and only exposed in extreme storm events. The sand in front of the backstop wall provides a natural dune buffer to protect properties during periods of accretion and the hard wall will only be exposed during period of erosion. Over time the wall would be exposed more often (as sea level rise and natural coastal retreat occurs). The walls placement inland allows a dry beach area to be maintained for longer and end effect erosion will be less as the wall will not be part of the active beach system for many years.

[3] Work that is considered able to be accommodated within the existing resource consent would need to be confirmed with the Bay of Plenty Regional Council as Consent Authority.



Council have requested further discussion regarding a backstop wall for the section of coast between Flat White Café/Elizabeth Street and the northern termination of the existing seawall. Section 5.2 provides more information.

8. Offshore Breakwater and nourishment: Offshore breakwaters are structures usually built parallel and offshore to the coast. Wave energy is either dissipated, reflected, refracted or diffracted resulting in reduced wave energy environment in lee of the breakwater. The breakwater can be built either to be submerged or emerging at low tide. It would also require placement of sufficient sand to assist the build up of a salient.



A combination of the above options may be adopted over time. For example a frontal seawall may be utilised for protection in the short term, in combination with purchasing beachfront properties over time (as they become available or funds allow) and rezoning the land (potentially to an open space zone). Once all properties are purchased and land is rezoned then the seawall can be removed and the natural coastline restored (with or without dune replenishment/planting) and allowed to recede naturally.

The options need to be further developed with the community and assessed against an overall vision for the coast. The options will need to balance the economic costs with social and environmental values.

5.2 Options for Erosion for Elizabeth Street and Northern End of Seawall

Council have requested further consideration of two options for the section of between Elizabeth Street/Flat White Café and the northern termination of the existing seawall. This includes a short term solution (dune enhancement under the existing resource consent) and a longer term solution (backstop wall).

5.2.1 Dune Enhancement

Dune enhancement was previously carried out by Council between Coronation Park and the northern termination of the existing sea wall. Following storm events the beach underwent a dramatic correction between Flat White Café/Elizabeth Street and the northern end of the seawall, resulting in the beach lowering by 1.0m and erosion of the new dune enhancement and existing dune. Sand for the dune enhancement was sourced from beach scraping at low tide from Coronation Park and the northern end of the seawall under the existing BOPRC resource consent 62912 (see Figure 18 below). While the option of dune enhancement is still available for the duration of the consent (consent expires in 2032), there are some opportunities and challenges with this option as outlined below.

Figure 18: Bay of Plenty Regional Council Resource Consent 62912/2 showing the proposed area of beach scraping (hatched), between Coronation Park to Shaw Place.

5.2.1.1 Advantages of Dune Enhancement under the existing consent

As an existing consent Council has an immediate option that they can implement in the short term (duration of consent is until 2032) which would not require a lengthy and costly consenting process. Dune shaping is a 'soft option' for coastal protection as it does not involve hard engineering solutions and allows natural coastal processes to continue, whilst affording some protection through a dune that may act as a buffer for landside assets. Non-engineered options are more in line with the New Zealand Coastal Policy Statement including, Policy 14 (Restoration of natural character), Policy 19 (Walking access) and Policy 26 (Natural defences) which give preference to "soft solutions" over "hard" engineered solutions and for that reason, reconsenting of the works at the end of the consent term may present less challenges than other hard protection options.

As dune reshaping does not interfere with natural coastal processes there is less likely to be beach lowering and public access along the beach at high tide should be maintained for longer than may be the case with other options. It is likely that some form of planting of the dunes would be required to stabilise them and assist in their natural protective function against erosion.

The periodic clearance of sand built up in Two and Three mile creek beds could be a source of sand in the future (would be subject to a variation of consent).

5.2.1.2 Disadvantages of Dune Enhancement under existing consent

The existing consent allowed for an initial take of 4,000m^3 of sand via beach scraping and 500m^3 annually thereafter under certain circumstances (only permitted if erosion is within 5 meters of private properties). This would provide a limited amount of sand for protection and may be inadequate over the 150m section of beach (initial estimates of a 1.8m high dune with a width of 2.2m after compaction). There are also restrictions on when dune nourishment can occur as the consent only allows for scraping to be done between May and October each year. Any renourishment outside of this period would require an additional resource consent (or a variation to the existing consent).

The consent only allows for beach scraping when appropriate beach profiling has been completed to confirm the beach is higher than the long term average beach profile. This means the work is subject to natural processes, which cannot always be predicted. The consent also requires an ecological survey to show that there are not relatively significant numbers of shellfish (or other species) present and that beach scraping works will not result in significant or irreversible adverse effects on marine ecology. This cost would need to be factored in as part of management. Lastly the consent also requires a width of 5 metres between the area of dune enhancement and the location of mean high water springs, to allow for public access to the beach at high tide, this could be a challenge given rising sea levels. A variation could be sought to alter these conditions; however, this could result in a costly consent process if the variation is notified and submissions are received in opposition.

Dune enhancement provides less certainty of erosion protection for landside infrastructure than hard protection options. The feasibility of dune enhancement is also an issue given previous attempts at reinstatement and enhancement of the dunes in this section of the beach have failed and were washed away. There is no guarantee that the dunes would not be washed again even if the conditions of the resource consent could be followed.

Table 2: Summary of Pros and Cons of Dune Enhancement

Pros	Cons
• Existing consent enables coastal works, saving time and cost of a consent process • "Soft" solution, more in line with NZCPS Policies allowing a potentially easier variation/new consent process • Allows for Public Access • Natural Protection • Beach amenity maintained • Could use sand built up on creek mouth (need a variation to consent)	• Consent will need to be renewed if work to continue beyond 2032 • Consent may require variation to be workable • No guarantee that dune enhancement will work and provide protection • Limited amounts of sand can be sourced under existing consent • Consent only able to be implemented if erosion is 5m from private property • Must allow for a 5m gap between dune and high mean high water springs, which may not be possible in near future • Beach scraping only allowed from May to October • Beach profiling needed and a certain profile required before consent can be implemented • Dependant on ecological survey showing works will not result in significant adverse effects

5.2.2 Backstop Wall

Council have requested further consideration of a backstop wall for the section of coast between Flat White Café and the northern termination of the existing seawall. A backstop wall would need to be located on private property. Council have indicated that any consent process to construct a backstop wall may be led by the private property owners themselves. A backstop wall sits behind the dunes and the sand can rebuild in front of it during accretional periods. The hard wall will only be exposed during periods of erosion. Backstop walls are therefore well suited to coasts like the Waihi Beach that have onshore/offshore erosion cycles. Over time the wall would be exposed more often (as sea level rise and natural coastal retreat occurs). There are advantages and disadvantages to a backstop wall as described below.

5.2.2.1 Advantages of a Backstop Wall

The benefit of a backstop wall is that it allows the natural coastal processes associated with soft protection to occur, whilst providing the greater certainty of landside infrastructure protection afforded by a hard engineering option. Potential effects such as end effect erosion and beach lowering would be less, as the wall may not be part of the active beach system for many years. This means that public access along the beach would be maintained for longer. If the consent for the wall is led by the landowners themselves then there would be less cost to ratepayers and more chance of wider community support.

5.2.2.2 Disadvantages of a Backstop Wall

As the backstop wall would be located on private property there would be the need to gain landowner approval.

The seawall would require resource consent and would need to be assessed against the New Zealand Coastal Policy Statement (NZCPS) and the relevant regional and district planning documents. It is anticipated that as part of the consent process it will need to be demonstrated that the option has been considered as part of a wider long term strategy for the coast (as is currently indicating in the existing seawall consent). Significant consultation with the community and stakeholders will be required to develop the strategy resulting in time and cost implications. The consenting process could also be open to public submissions and could mean that the consent application could be contested and costly, much like the existing seawall (although we anticipate a backstop wall will be less contested that a frontal seawall). Joint ownership of the backstop wall and the consent also bring its own challenges, as owners may not be able to afford the works, may not want to proceed or may unable to reach consensus and there may be issues around responsibility for compliance with conditions of any resource consent granted.

Table 3: Summary of Pros and Cons of Backstop Wall

Pros	Cons
• Dry beach maintained and public access retained for a longer period • Consenting completed by land owners results in less ratepayer cost • Beach amenity maintained for longer • Allows natural coastal processes to continue in short term	• Requires resource consent, which may result in cost and time delays if contested • Private landowner approval required given it will be located on private property • Rising sea levels may not allow public access at high tide in the future and wall will become exposed more frequently as sea levels rise • Property owners may not reach consensus or there may be compliance issues

6 Future Work

In 2008 the Ministry for the Environment (MfE) developed guidance for local government on coastal hazard management, this document was called the *Coastal hazards and climate change: Guidance for local government,* and was updated in December 2017. The updated version introduces new material on hazard, risk and vulnerability assessments, and collaborative approaches to engaging with communities as an integral part of coastal management. The 2017 edition also explains adaptive approaches to planning for climate change in coastal communities and places community engagement at the centre of decision-making processes.

It is widely accepted that engagement with local communities, iwi/hapū and stakeholders will be essential in setting long term strategies and assessing options for coastal management because they (and future generations) will be affected by coastal hazards and change, and their lives and values are likely to be affected. As a consequence, it is generally accepted that they should have a role to play in decision-making regarding future adaptation.

The guidance recommends that options for hazard management is shared with the public and further consultation is undertaken to find the preferred options. Once the preferred options are identified and implemented then an adaptive pathway is established, which enables the options to be reviewed and changed as the climate and coastal conditions change.

It is for this reason that future work is recommended that includes developing a vision for the coast with the local Waihi Beach community and stakeholders, assessing potential options to meet the desired goals for the coast as outlined in the vision and utilising the stepped approach outlined in the MfE guidance for local government to develop a preferred long term option or options.

The best practice decision framework for the dynamic adaptive pathways includes 5 steps and 10 subheadings as shown in Figure 19 below:

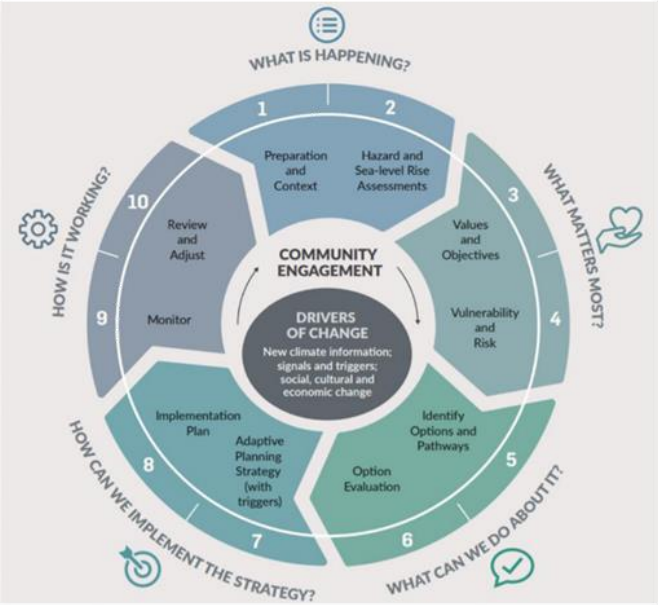


Figure 19: Coastal Hazard Decision Cycle (Source: MfE, 2017)

Appendix A – Site Visit Records (19/11/2018)

Area	Observation	Photos (Grouped by Row)	
1. Surf Club	Dune reclamation is well-established and is performing as intended for the entire surf club area. ElcoRock sand bags have been adequately bedded, and longshore drift doesn't seem to be affecting the stream mouth alignment. Rip rap is well interlocked up to the first bridge (One-Mile Creek).		
			
2. Coronation Park (Dune Rehab)	High-tide line varies, yet dune enhancement remains consistent along the beach (Left column of photos) Crest of dune buffer is densely vegetated, however exposed dunes at beachline are sparser. Dune fence lines are not well maintained, allowing foot traffic to pass through easily.		

			
			
3. Flat White Café	Café is newly established (last three years approximately). Noted that the building footprint extends to neighbouring fence line. Council park neighbouring Flat White is benched at a different level. Sporadic placement of large boulders that provide little to no protection for local scour in this area. Scattered boulders located around staircase piles. Steep bank section that is vegetated. High water mark is ~10m from the toe of bank.		

			
4. Section	Timber posts indicate approximate property boundary. ~1.5m from the crest of the bank. Bank height approximately ~1.8m to the toe. 100mm - 500mm diameter stones and leftover construction debris line the toe. ElcoRock sandbags used for beach access. Active erosion occurring at banks.		

			
5. Section A-A	More ElcoRock accessways. Scour on either side of the accessways are more prominent in these locations. Property boundary line is present at the crest of embankment. Significant amount of construction debris exposed within bank. Debris has dislodged from the embankment and collected at the toe.	 	 

6. Seawall Tie-In	Notable increase of erosion on approach to seawall tie-in. ElcoRock accessway tied in toward end of seawall. Tie-in situated ~+10m from highwater mark.	   
7. Seawall Taper	Crest edge of seawall to property boundary is significant here. ~5-10m. Use of similar-sized slab rock to bench private accessways common along this section due to crest length. Sand accretion showing at base of seawall. Highwater mark often reaches toe of seawall at this section.	 

8. Section D-D	Public accessway via timber structure. New houses (one under construction - central in top left photo) are positioned a substantial distance from the edge of seawall. Protrusion of seawall (top right) extends beyond the highwater mark.	 	
9. Section	Section located at property under-construction. Includes tabled seawall access, and a large offset of house from seaside boundary. Approximately ~1.0m from fence to beginning of seawall.		

			
10. Section	House is constructed extremely close to edge of dune. Accretion of sand visible at seawall base. Noted that the sand recession during winter months reduces to the toe edge of seawall in this section.	 	 

11. Section B-B	Measured section (south of accessway). Densely vegetated at top of seawall.	 	 
12. Two-Mile Creek	Noting the encroachment of seawall into several properties. Very close to building footprints. Conversation with Chris who owns 1 Edinburgh St. Talked about the wetland and how the creek functions. During storm conditions, wave overtops seawall and is near finished floor level of house. Currently, the creek outlet is following the training wall groyne, and is exiting straight out to ocean. Area at termination of southern training groynes appears to be used for public and boat access. Dunes south of creek appear to be well secured and flourishing.		

		   	
13. Beach Access	At commencement of southern seawall, pedestrians are walking over the dune, displacing sand and exposing geotextile. Height of dune buffer is notably higher than more northern sections. Highwater mark appears to return to ~+10m outside of seawall toe.		

			
14. Section	Rock seawall terminates at existing private boat ramp. Concrete ramp surface has cracks.		
15. Section	Section measurements taken ~15m south of access staircase (RH column photos). Access 21. Properties positioned a substantial distance from beginning of seawall. Pedestrian thoroughfare parallel to top of seawall.		

			
16. Section C-C	Section measurements taken ~15m south of access staircase (RH column photos). Properties positioned a substantial distance from beginning of seawall. Pedestrian thoroughfare parallel to top of seawall.		 

17. Seawall Tie-In	Geotextile exposed ~7m from end of seawall. Property boundary approximately ~0.5m from beginning of seawall. Dune-bank adjacent to end of seawall is actively eroding, as illustrated by the new vegetation that has slipped off the top of the bank.		 
18. Section	Lead up to Three-Mile Creek – bank erosion occurring. Banks are approximately ~2.2m high. Access north of the creek has dunes which are notably inland from the elcorock wall.		

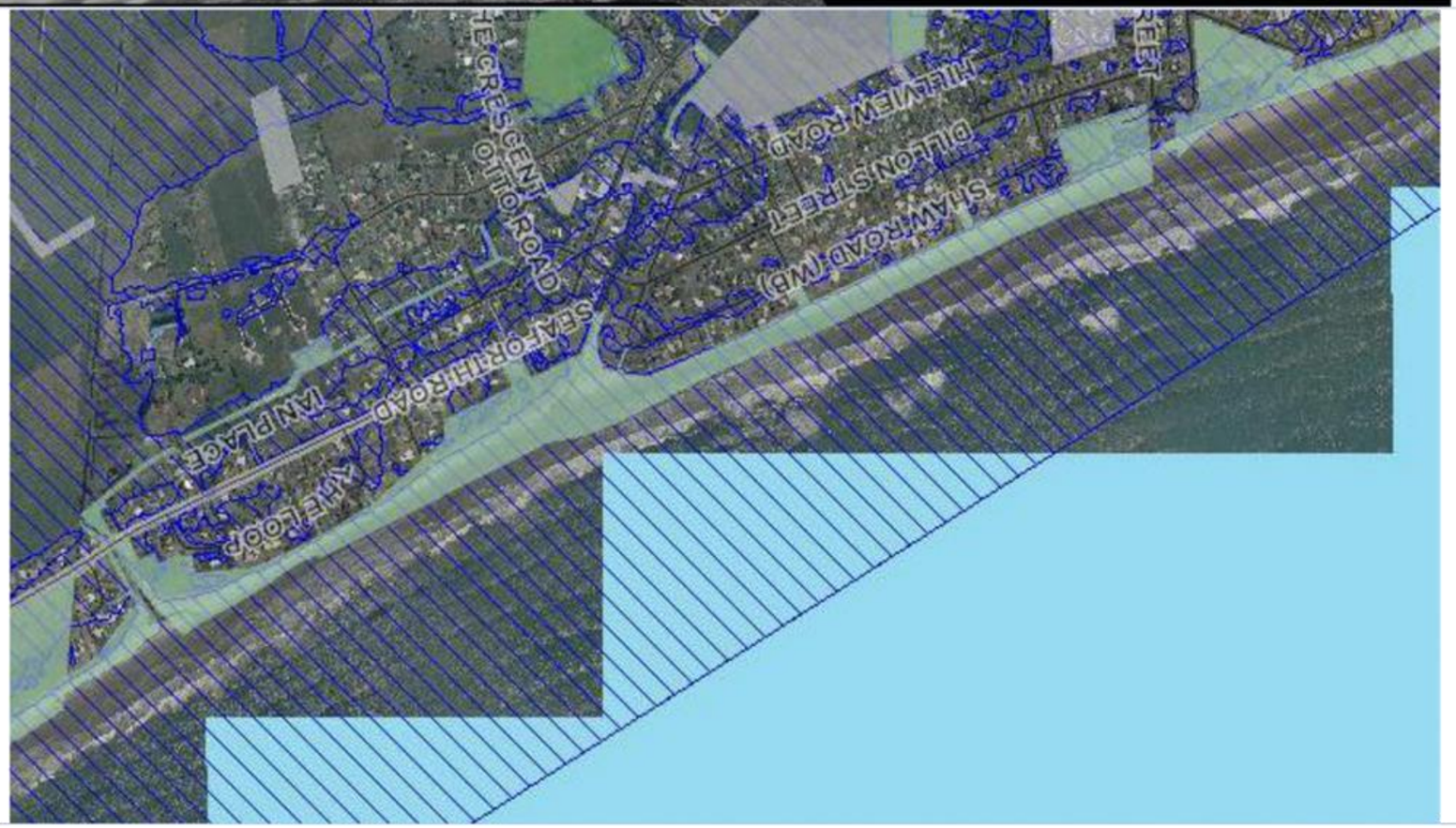
			
19. Three-Mile Creek	Northern sea section ElcoRock bank is keyed in and is trapping sand. The channel of the creek favours the southern embankment. There are some minor remedial works to the bags on the southern side also, close to current water level. Sand has built up to the top layer of the ElcoRock bags on the southern groyne.	 	 

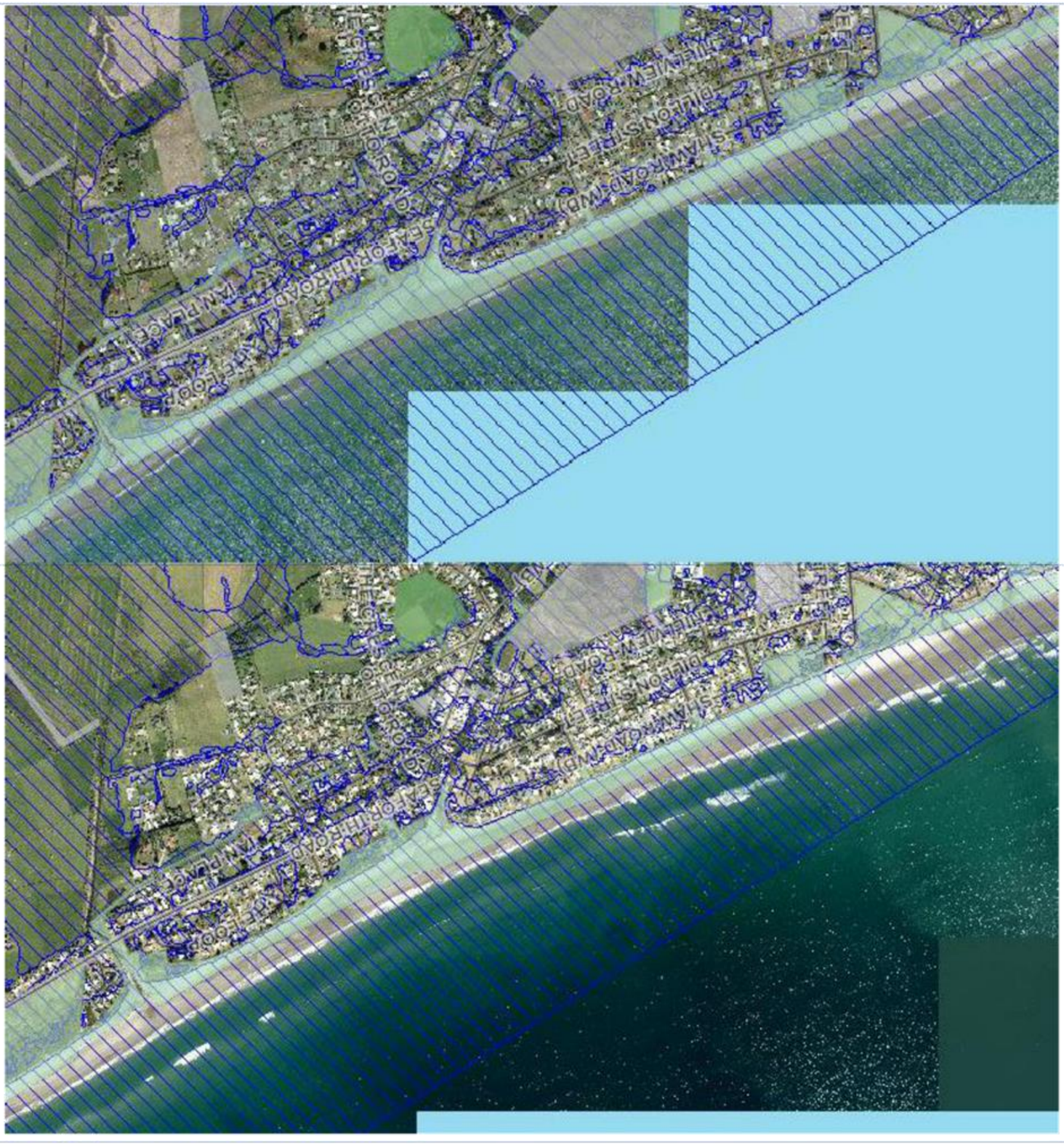
Appendix B – Aerial Photography

Time Period		
1942 Sourced from RetroLens	 retrolens.nz and licensed by LINZ CC–BY 3.0	
1963 Sourced from RetroLens		

1969 Sourced from RetroLens	 
1974 Sourced from RetroLens	

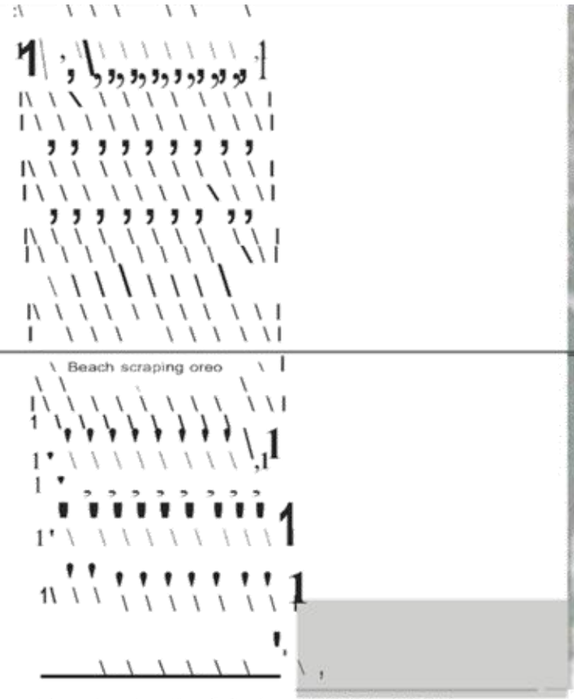
1982 Sourced from RetroLens	
1986 Sourced from RetroLens	

1991 Sourced from RetroLens	
2001/2005 Sourced from WBoP Mapi	

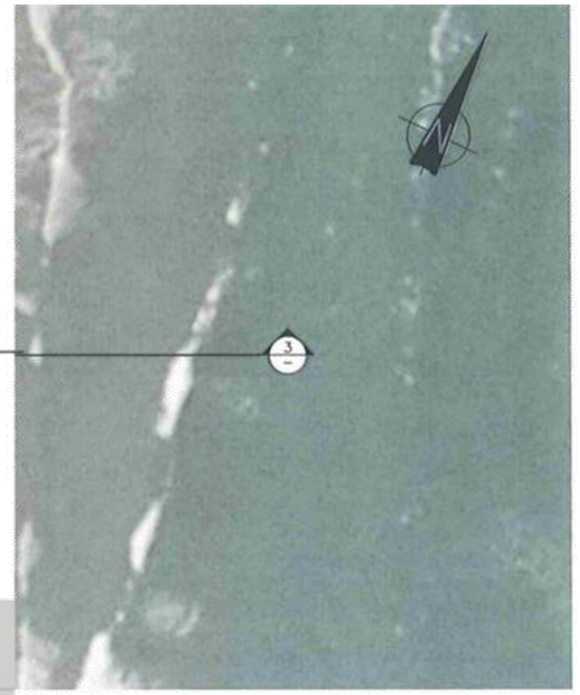
2006/2010 Sourced from WBoP Mapi	
2011/2016 Sourced from WBoP Mapi	

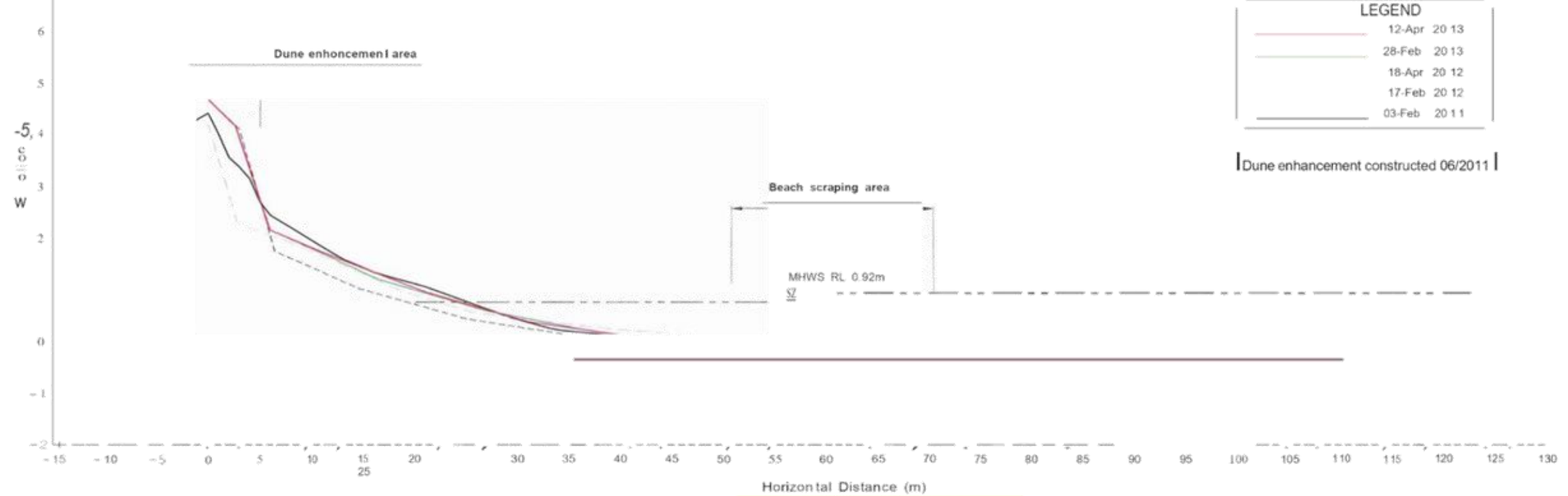
Appendix C – Seawall Construction Drawings and Beach Profile Monitoring (February 2011 – April 2013)

Aerial photo sourced from Western Bay of Plenty District Council



29/31 SHAW ROAD (WCP3) PLAN
Scale 1:500





SECTION
SCALE 1:500H

Section A-A

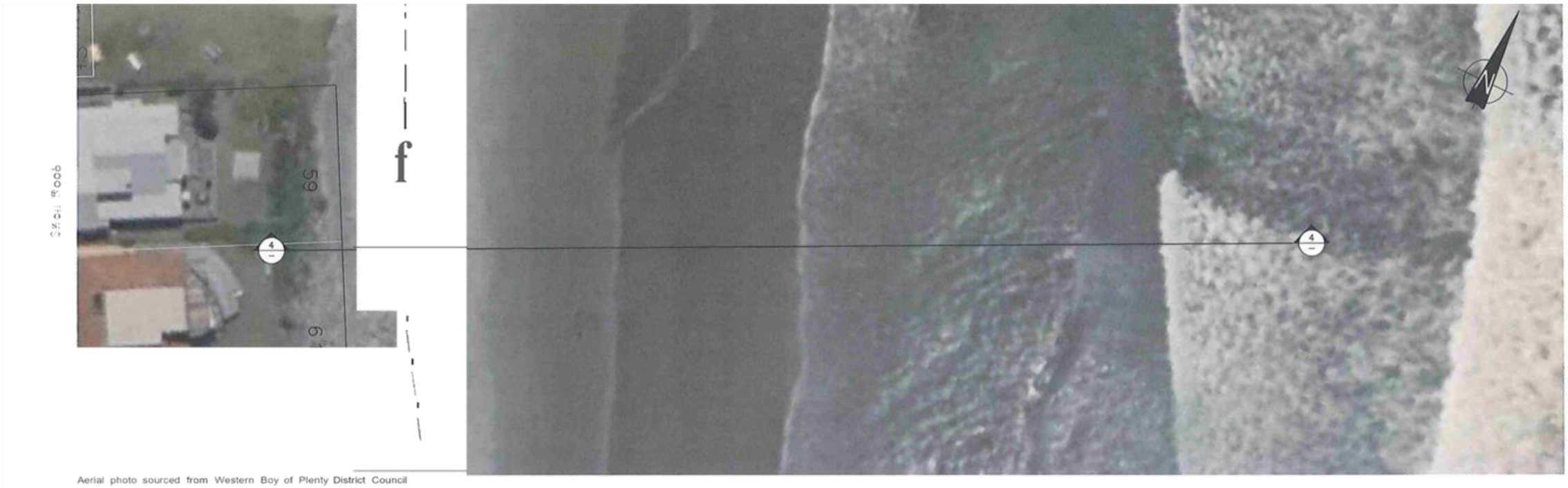
DESIGNED :	MCI	Jul. 13	NOTES :
DRAWN :	JATG	Jul. 13	1. Co-ordinates in terms of Geodetic Datum Bay of Plenty 2000. Reduced levels in terms of Moturiki Datum.
DESIGN CHECKED :	RSL	7/13	
DRAFTING CHECKED :	[illegible]	7/13	
CADFILE : \\BS-1630-A01.dwg			

Tonkin & Taylor
Environmental and Engineering Consultants

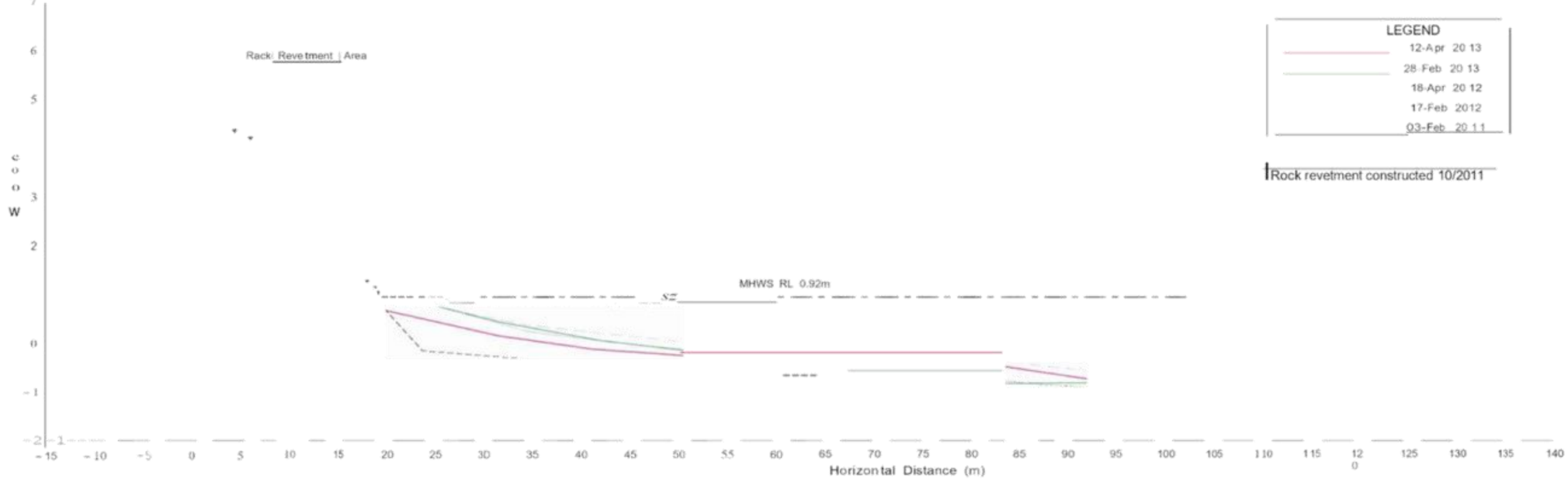
DRAWING STATUS: FOR INFORMATION ON

CLIENT, PROJECT
WESTERN BAY OF PLENTY DISTRICT COU
WAIHI BEACH PROTECTION

TITLE
BEACH LEVEL MONITORING JUNE 2013



59/6 1 SHAW ROAD (WCP4) PLAN
Scale 1:500



SECTION
SCALE 1:500H
1:100V

Section B-B

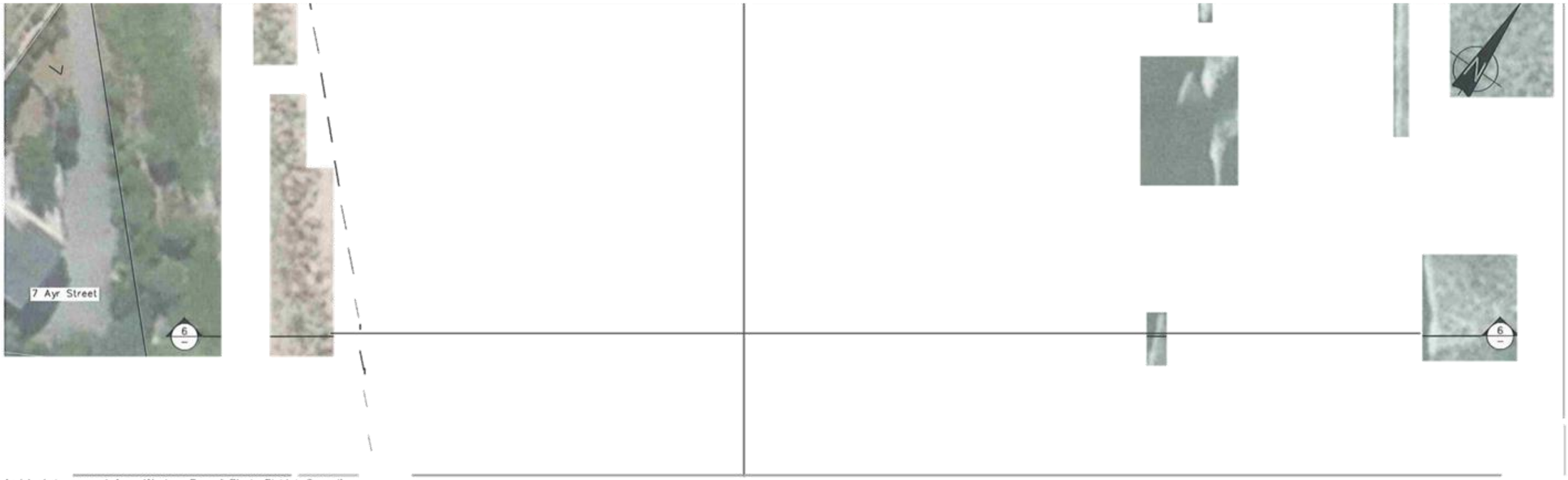
A3 SCALE 1:500
0 5 10 15 20 2.5 (m)

DESIGNED :
DRAWN :
DRAFTING CHECKED :
CADFILE : \\85 1630-A05.dwg
MCI Jun. 13 NOTES :
Jun. 13
1. Co-ordinates in terms of Geodetic Datum Bay of Plenty 2000. Reduced levels in terms of Moturiki Datum.

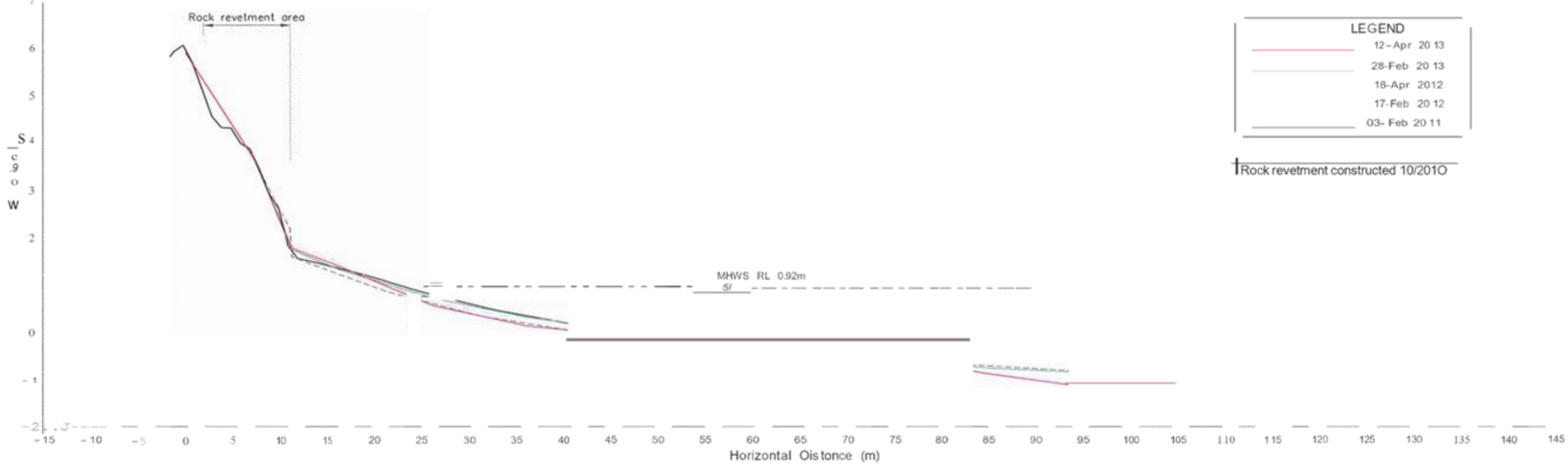
Tonkin & Taylor
Environmental and Engineering Consultants

DRAWING STATUS: FOR INFORMATION ON

CLIENT, PROJECT
WESTERN BAY OF PLENTY DISTRICT COU
WAIHI BEACH PROTECTION
TITLE
BEACH LEVEL MONITORING JUNE 2013



7 AYR STREET / 8 THE LOOP (WCP6) PLAN
Scale 1:500



SECTION 7 AYR STREET 8 THE LOOP WCP6
SCALE 1:500H
1:100V

Section C-C

A3 SCALE 1:500
0 5 10 15 20 25 (m)

DESIGNED :
DRAWN :
DESIGN CHECKED :
DRAFTING CHECKED :
CADFILE : \\85 1630-A07.dwg
MCI Jun.13

NOTES
1. Co-ordinates in terms or Geodetic Datum Boy or Plenty 2000.
Reduced levels in terms of Moturiki Datum.

Tonkin & Taylor
Environmental and Engineering Consultants

DRAWING STATUS: FOR INFORMATION ON

CLIENT, PROJECT
WESTERN BAY OF PLENTY DISTRICT CO
WAIHI BEACH PROTECTION

TITLE
BEACH LEVEL MONITORING JUNE 2013

Appendix D – Preliminary Engineering Design for End Effect Erosion

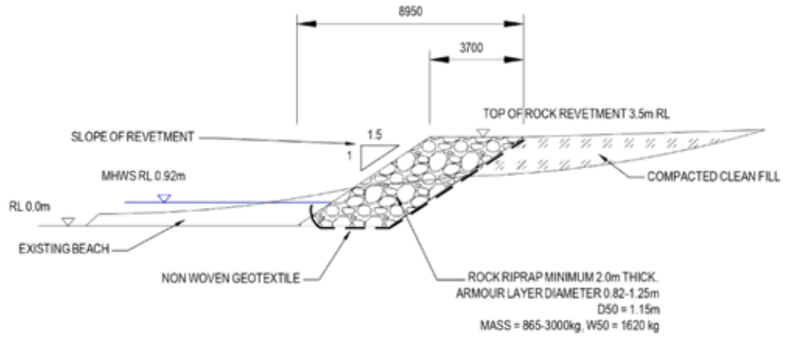
A WAIHI BEACH LOCALITY PLAN
SCALE 1:10000 (A3)

B CA-001 SOUTHERN SEAWALL TERMINATION
SCALE 1:500 (A3)

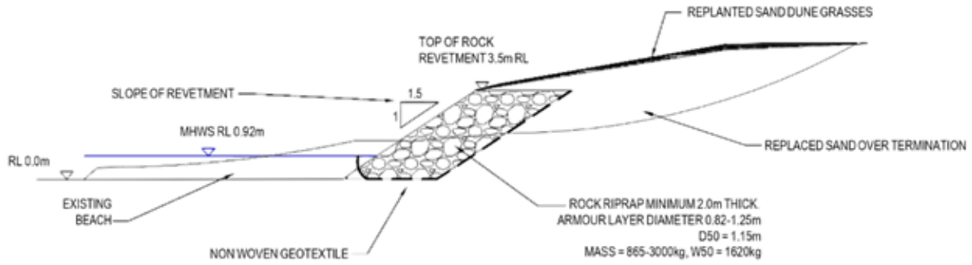
NOTES:

1. ALL DIMENSIONS ARE IN MM.
2. NO TOPOGRAPHIC SURVEY HAS BEEN UNDERTAKEN FOR THIS SEAWALL TERMINATION DESIGN.
3. CONTRACTOR TO LIAISE WITH WBOPDC TO ARRANGE ACCESS FOR CONSTRUCTION OF THE SEAWALL TERMINATION.
4. CONTRACTOR IS RESPONSIBLE FOR EXCAVATION STABILITY AND/OR TEMPORARY WORKS.
5. CONTRACTOR TO CONFIRM THE RETURN EXTENT OF THE SEAWALL TERMINATION WITH WBOPDC ON SITE.

Drawing Originator:	Original Scale (A3)				Approved For Construction*	Client:	Project:	Title:	Discipline
		Design	HD	280619			WAIHI BEACH	WAIHI BEACH	CIVIL
		Drawn	HD	280619					



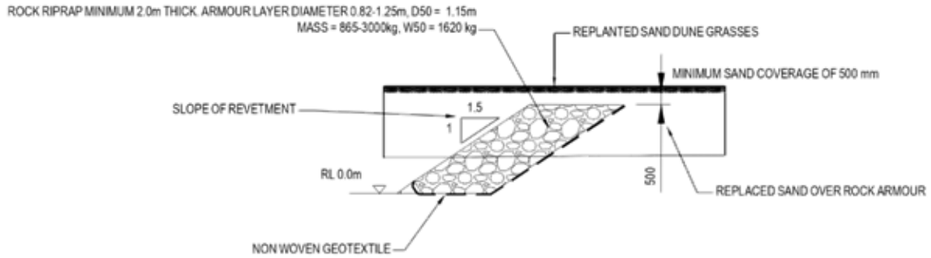
1 CA-001 EXISTING ROCK REVETMENT (AS PER T & T DRAWING 851225.001-27)
SCALE 1:250 (A3)



2 CA-001 ROCK REVETMENT
SCALE 1:250 (A3)

NOTES:

1. ALL DIMENSIONS ARE IN MM.
2. ALL REDUCED LEVELS ARE SHOWN IN METRES AND ARE IN TERMS OF MOTURIKI DATIM 2000.
3. NO TOPOGRAPHIC SURVEY HAS BEEN UNDERTAKEN FOR THIS SEAWALL TERMINATION DESIGN.
4. THE INDICATIVE MHWS LEVEL OF 0.92M RL TAKEN FROM TONKIN AND TAYLOR DRAWING: 851225.001-27 2009.
5. ROCK TO BE SOURCED FROM THE WAIHI BEACH QUARRY.
6. MINIMUM ROCK DENSITY OF 2630KGM IS REQUIRED.
7. ROCK WEATHERING RESISTANCE QUALITY INDEX SHALL BE AA, AB, BA OR BB.
8. SAND GRASSES TO BE REPLACED AS NATIVE COASTAL PLANT SPECIES ASSUMING SPECIES OF PINGAO AND SPINIFEX.
9. GEOTEXTILE TO BE BIDIM A64 OR EQUIVALENT. GEOTEXTILE FOR SEAWALL TERMINATION TO BE LAPPED TO EXISTING GEOTEXTILE. ROCK TO BE LOWEVERD ONTO GEOTEXTILE TO PREVENT PUNCTURING.



3 CA-001 ROCK REVETMENT
SCALE 1:250 (A3)

		Drawing Originator:	Original Scale (A3)	Design	HD	280619	Approved For Construction*	Client:	Project: WAIHI BEACH
				Drawn	HD	280619			Title: WAIHI BEACH / Discipline: CIVIL

Appendix E – Cost Estimate for End Effect Erosion Works

Project: **WESTERN BAY OF PLENTY DISTRICT COUNCIL**
WAIHI BEACH SOUTHERN SEAWALL TERMINATION

Doc: **CAPITAL COST ESTIMATE**

Rev: 0

Job No: 4287029-101

Date: 4 July 2019

Author: Bruno Deans (Verified by Mark Wilson)

MAIN SUMMARY

1.00 Executive Summary:

1.01 The following cost estimate has been prepared for the Western Bay of Plenty District Council for the proposed Southern Seawall Termination works located at Waihi Beach near Loop Road and Three Mile Creek Reserve. This estimate is an indicative assessment of the capital cost requirements of the project, based on the preliminary engineering design. Please note that the figures contained within this estimate are high level and are intended for initial budget establishment.

2.00 Scope of Work and Cost

2.01 The following scope of work and cost has been assessed as follows:

Ref	Item Description	%	Total ($ NZD)
a	Demolition and Temporary Works	3.5%	7,000
b	Earthworks	67.0%	134,000
c	Drainage Works	1.0%	2,000
d	Landscaping	4.5%	9,000
e	Pavement & Surfacing	0.5%	1,000
f	Traffic Management	2.0%	4,000
g	Environmental Compliance	1.5%	3,000
h	Services Protection	1.0%	2,000
i	Preliminaries & General/Off-Site Overheads & Profit	19.0%	38,000
	Total Physical Works Estimate	**100.0%**	**200,000**
j	Design & Engineering		Excluded
k	Project & Cost Management		Excluded
l	Geotechnical investigation		Excluded
m	Resource & Building Consent Fees		Excluded
n	Project Costs Sunk to Date		Excluded
	Total Base Estimate		**200,000**
o	Design Development Allowance (10%)		20,000
p	Construction Contingency (10%)		20,000
	Total Expected Estimate (Excluding GST)		**240,000**

Please also refer to the attached cost estimates for further detail relating to the above values

Project:	**WESTERN BAY OF PLENTY DISTRICT COUNCIL** **WAIHI BEACH SOUTHERN SEAWALL TERMINATION**
Doc:	**CAPITAL COST ESTIMATE**
Rev:	0
Job No:	4287029-101
Date:	4 July 2019
Author:	Bruno Deans (Verified by Mark Wilson)

MAIN SUMMARY

3.00 Estimate Approach & Methodology:

3.01 This estimate has been prepared using a combination of high level and detailed estimating principles (i.e. cost per functional area, cost per elemental item, cost resourcing, etc) for the key scope items identified. This estimate has also been priced on local construction industry rates at present date prices. The accuracy of this estimate is commensurate with the level of design information available and base assumptions made.

3.02 Main Contractor Preliminary & General (P&G) otherwise known as On-Site Overhead costs covers items such as site supervision / management, site offices, stores, hoardings, amenities, plant, cranes, temporary works etc.

3.03 Main Contractor Off-Site Overheads and Profit (OH&P) covers the cost of the Main Contractor's Business operational costs, such as executive management, accounts, quality and health & safety systems and company profits.

3.04 The Design Development Allowance is integral to the estimate total and is a general allowance for residual cost risk including design development, omissions, sundry unmeasured items and assumptions made for construction details not shown based on the current project scope.

3.05 Construction Contingency is a risk contingency to cover the cost of variation claims made by the contractor during the construction phase of the project. This contingency is integral to the estimated outturn cost and should be separately monitored during the construction phase. It is estimated based on the current project scope, exclusive of any client driven scope changes.

3.06 Estimate accuracy range is an indication of the degree to which the final cost outcome for a given project may vary from the estimated cost. Accuracy is expressed as a +/- percentage range around the point of estimate after the application of contingency, with a stated level of confidence that the actual cost outcome would fall within this range. As the level of project definition increases and the tender date draws nearer, the expected accuracy of the estimate tends to improve, as indicated by a tighter +/- range.

3.07 This cost estimate is based on the preliminary engineering design information provided and is currently subject to an accuracy range of **-10% to +25%**.

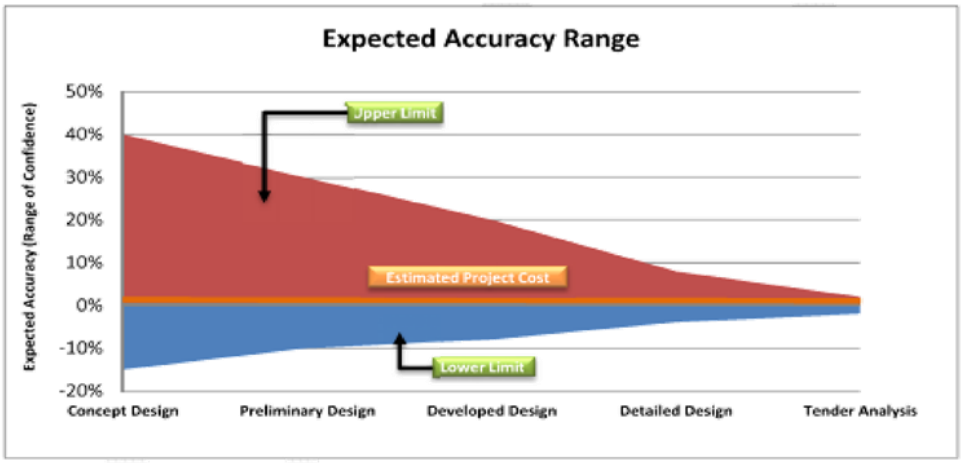
3.08 This accuracy range highlights the following unknown risks that can impact the project that are difficult to predict or value. As the project gets closer to tender this range will reduce to reflect the level of confidence in the design and information available and level of risk. These risks could include:

a Procurement routes – Additional costs may be incurred due to the chosen procurement route (outside of a standard competitively tendered process).

b Major fluctuations in the market – Currently we are experiencing significant movement in pricing across many sub-trades due to the current buoyant construction market. This is putting pressure on resources which is resulting in unpredictable and generally escalating pricing.

c Scope Definition - General accuracy of what is perceived 'defined scope' (e.g. Does the documented scope of work address all of the requirements as briefed by the client under the commission).

d Funding risk



Project: **WESTERN BAY OF PLENTY DISTRICT COUNCIL**
WAIHI BEACH SOUTHERN SEAWALL TERMINATION

Doc: **CAPITAL COST ESTIMATE**

Rev: 0

Job No: 4287029-101

Date: 4 July 2019

Author: Bruno Deans (Verified by Mark Wilson)

MAIN SUMMARY

4.1 Project Risks:

4.01 The following project risks have been identified with the current scheme:

a Archaeological discovery

b Overheated construction market limiting resource availability, resulting in prolonged programme and/or inflated costs.

c Removal and disposal of contaminated materials discovered on site

5.00 Value Management Opportunities:

5.01 The following Value Management Opportunities have been identified with the current scheme:

a None at this stage

6.00 Estimate Assumptions:

6.01 Our estimate of cost is based on the following working assumptions:

a The building works will be procured under competitive bid scenario via local building contractors.

b Unrestricted access to carry out the works.

c The works will be undertaken under normal working hours.

d The works will be undertaken concurrently. No allowance has been made in our estimate for staged works.

e The works will be carried out by a Single Main Contractor. No allowance has been made for multiple contracts.

7.00 Estimate Exclusions:

7.01 Our estimate of cost excludes the following:

a Goods & Services Tax (GST).

b Client management costs.

c Land acquisition costs (not applicable).

d Client insurances.

e Escalation allowances.

f Legal fees

g Financing costs

h Planning & Resource Consent fees (assumed not required)

i All other exclusions specifically noted in the cost estimate and covering summary

8.00 Reference Documentation:

8.01 Our estimate is based on the following documentation:

a Beca Preliminary Engineering Design dated 28-06-2019 - DWG's 427029-CA-001 & 002 (Rev A)

Project: **WESTERN BAY OF PLENTY DISTRICT COUNCIL**
WAIHI BEACH SOUTHERN SEAWALL TERMINATION

Doc: **CAPITAL COST ESTIMATE**

Rev: 0

Job No: 4287029-101

Date: 4 July 2019

Author: Bruno Deans (Verified by Mark Wilson)

MAIN SUMMARY

9.00 Disclaimers

9.01

9.02 This report has been prepared by Beca on the specific instructions of our Client. It is solely for our Client's use for the purpose for which it is intended in accordance with the agreed scope of work. Any use or reliance by any person contrary to the above, to which Beca has not given its prior written consent, is at that person's own risk.

9.03 Where another party has supplied information for use in this report, it is assumed to be reliable.

9.04 Beca reserves the right, but not the obligation, to review all calculations included or referred to in this report and, if considered necessary, to revise its opinion in the light of any new or existing information.

9.05 This cost estimate has been developed solely for the purpose of comparing and evaluating options. They cannot be used for budget-setting purposes as common elements between options may have been omitted and/or the works not fully scoped. A functional design should be undertaken if a budget estimate is required.

WAIHI BEACH SOUTHERN SEAWALL TERMINATION

: CAPITAL COST ESTIMATE

: 0

No: 4287029-101

e: 4 July 2019

or: Bruno Deans (Verified by Mark Wilson)

OST ESTIMATE DETAIL

	Item Description	Calculation	Quantity	Unit	Rate (NZD $)	Sub-Total (NZD $)	Total (NZD $)
	Key Metric Information						
1.01	Rock Wall Length	18.81	19.00	m	-	-	
1.02	Rock Wall Width	8.95	9.00	m	-	-	
1.03	Rock Wall Height	2.00	2.00	m	-	-	
1.04	Rock Wall Cross Sectional Area (Taken from cross-section)	13.00	13.00	m2			
1.05	Rock Wall Volume (Solid state)	244.47	245.00	m3	-	-	
1.06	Programme	4.00	4.00	weeks	-	-	
	Demolition and Temporary Works						**7,000.00**
2.01	Allowance for forming site access and construction of lay down areas	1.00	1.00	LS	3,000.00	3,000.00	
2.02	Allowance for clearing all debris and rubble from site	1.00	1.00	LS	1,000.00	1,000.00	
2.03	Allowance for reinstating all working areas back to existing	1.00	1.00	LS	3,000.00	3,000.00	
2.04	Rounding Adjustment	1.00	1.00	LS	0.00	0.00	
	Earthworks						**134,000.00**
3.01	Remove/strip topsoil to stockpile	252.46	253.00	m2	5.00	N/A - Sand Only	
3.02	Excavate dune for new seawall, cut to stockpile on site (Measured solid in the cut)	862.96	863.00	m3	25.00	21,575.00	
3.03	Trim excavations	189.18	190.00	m2	5.00	950.00	
3.04	Heavy duty geotextile cloth	189.18	190.00	m2	12.00	2,280.00	
3.05	0.80-1.25m diameter boulder fill supplied & delivered to site - Based on $80t delivered to site, excluding GST - J Swap advice 03-07-2019	611.16	612.00	tonne	80.00	48,960.00	
3.06	20t long reach excavator (24m3/day) and labour crew, place boulder fill (2.0m thick) to form new seawall termination	10.19	11.00	day	2,560.00	28,160.00	
3.07	Tracked dump truck - To take material from reserve to sea wall location	10.19	11.00	day	1,200.00	13,200.00	
3.08	Cut to fill profile of new seawall, sand from stockpile	251.80	252.00	m3	25.00	6,300.00	
3.09	Cart surplus stockpile material to waste	611.16	612.00	m3	20.00	12,240.00	
3.10	Rounding Adjustment	1.00	1.00	LS	335.00	335.00	
	Drainage Works						**2,000.00**
4.01	Allow for protecting and reinstating existing drainage services	1.00	1.00	LS	2,000.00	2,000.00	
4.02	Rounding Adjustment	1.00	1.00	LS	0.00	0.00	
	Landscaping						**9,000.00**
5.01	Replant dune with native sand grass (Pingao and Spinifex)	235.73	236.00	m2	30.00	7,080.00	
5.02	Allowance for protecting and reinstating existing grassed areas (on neighbouring properties)	1.00	1.00	LS	1,000.00	1,000.00	
5.03	Allowance for protecting and reinstating existing footpaths	1.00	1.00	LS	1,000.00	1,000.00	
5.04	Rounding Adjustment	1.00	1.00	LS	(80.00)	(80.00)	
	Pavement & Surfacing						**1,000.00**
6.01	Allowance for protecting and reinstating existing road pavements	1.00	1.00	LS	1,000.00	1,000.00	
6.02	Rounding Adjustment	1.00	1.00	LS	0.00	0.00	
	Traffic Management						**4,000.00**
7.01	Allowance for temporary traffic management plan	1.00	1.00	LS	1,000.00	1,000.00	
7.02	Allowance for implementing traffic management plan including installation, monitoring and removal of traffic management measures	1.00	1.00	LS	3,000.00	3,000.00	
7.03	Rounding Adjustment	1.00	1.00	LS	0.00	0.00	
	Environmental Compliance						**3,000.00**
8.01	Allowance for preparing design, submit plan, implement and maintain erosion, dust, noise, silt and sediment control plan	1.00	1.00	LS	3,000.00	3,000.00	
8.03	Rounding Adjustment	1.00	1.00	LS	0.00	0.00	

WAIHI BEACH SOUTHERN SEAWALL TERMINATION

CAPITAL COST ESTIMATE

0

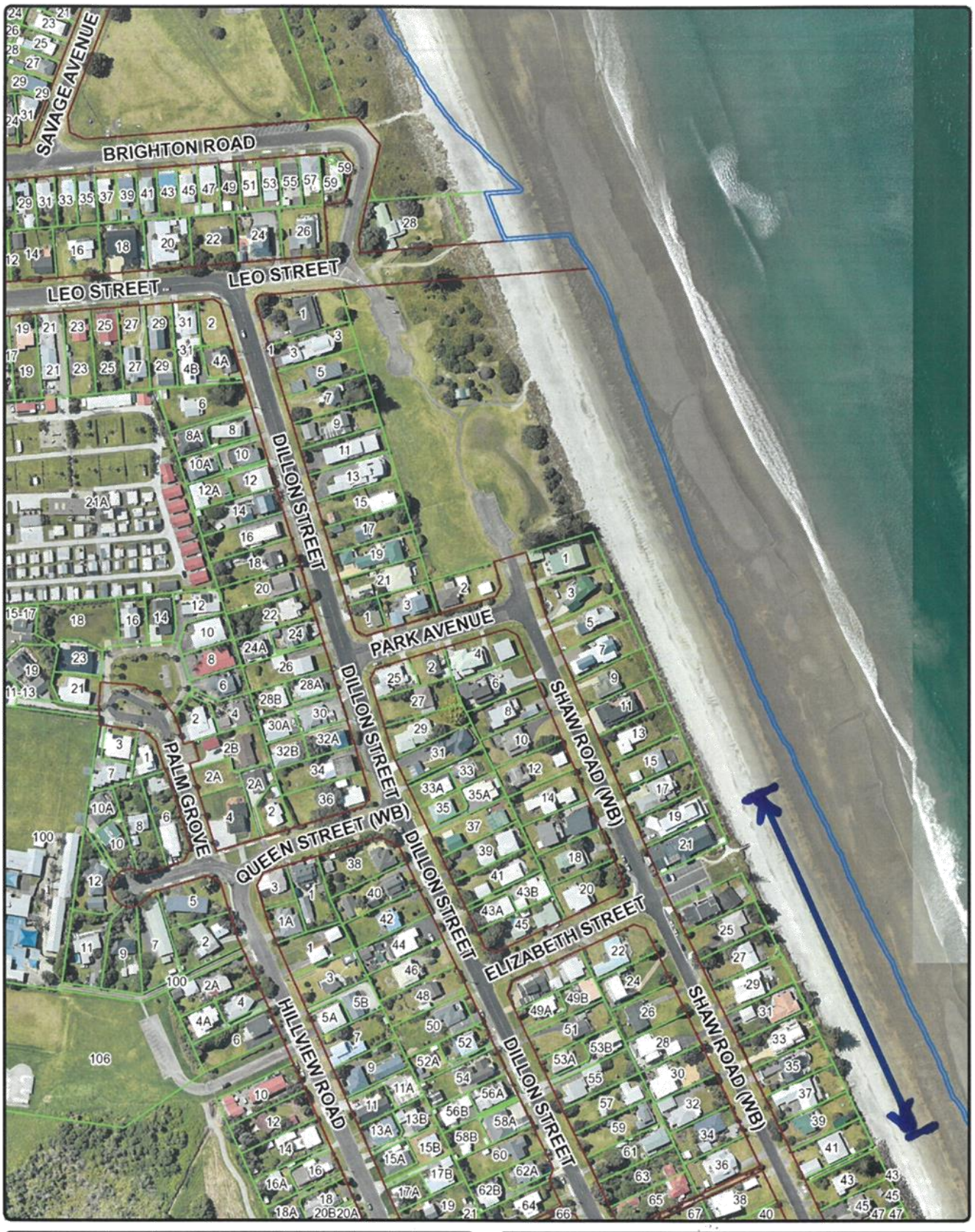
No: 4287029-101

4 July 2019

Bruno Deans (Verified by Mark Wilson)

OST ESTIMATE DETAIL

	Item Description	Calculation	Quantity	Unit	Rate (NZD $)	Sub-Total (NZD $)	Total (NZD $)
	Services Protection						**2,000.00**
9.01	Allowance for ascertaining the position of all existing services and protection	1.00	1.00	LS	2,000.00	2,000.00	
9.02	Rounding Adjustment	1.00	1.00	LS	0.00	0.00	
0	**Preliminaries & General/Off-Site Overheads & Profit**						**38,000.00**
0.01	Allowance for site establishment & disestablishment	-	-	LS	-	Included below	
0.02	Allowance for all fixed charge, on-site overheads	-	-	LS	-	Included below	
0.03	Allowance for all time related charge, on-site overheads	-	-	LS	-	Included below	
0.04	Allowance for all project documentation and quality controls	-	-	LS	-	Included below	
0.05	Preliminaries & General	162,000.00	162,000.00	LS	15%	24,300.00	
0.06	Off-Site Overheads & Profit	186,300.00	186,300.00	LS	8%	14,904.00	
0.07	Rounding Adjustment	1.00	1.00	LS	(1,204.00)	(1,204.00)	
	TOTAL PHYSICAL WORKS ESTIMATE					**200,000.00**	**200,000.00**



Produced using ArcMap by the Western Bay of Plenty District Council GIS Team.
Crown copyright reserved. LINZ digital license no. HN/352200/03 & TD093522.
Location of services is indicative only. Council accepts no liability for any error.
Archaeological data supplied by NZ Archaeological Assoc/Dept. of Conservation.

Date: 09/07/2020
Operator: mbl
A4 Scale 1: 3,000
0 150 Meters

Western Bay of Plenty District Council

Waihi Beach Sea Wall

N

REVIEW
OF
COASTAL MANAGEMENT OPTIONS
AT
NORTHERN END OF WAIHI BEACH

30 June 2016

J L Lumsden
Consulting Engineer
P O Box 8515
CHRISTCHURCH 8440

A2836493

ATTACHMENT

Executive Summary

The Waihi Beach Protection Society Inc[WBPS] have confirmed that they wish to obtain resource consent to provide coastal protection on Wauhi Beach, from the northern end of the existing rock revetment at 41 Shaw Road to 1 Shaw Road (at the boundary of Coronation Park). It is expected that resource consent will be required from Environment Bay of Plenty and that WBPDC would prepare the necessary application. The writer was engaged by WBPS to review the issues and report on the most appropriate options to protect property along this part of Waihi Beach.

A site visit on 6 May 2016, showed that the existing revetment, completed in September 2011, has performed well without having had any obvious adverse effects. Beyond the rock revetment, the coast to the north of 41 Shaw Road through to Coronation Park, which is the focus of this report, was considered less vulnerable at the time the rock revetment was proposed and was, thus, subjected to a dune enhancement programme in the hope that this would be sufficient to provide protection from storm waves whilst maintaining the natural character of the coast. In the event, these works, undertaken in April 2011, were mostly destroyed during storms in June 2011.

Immediately north of the end of the rock revetment, there is approximately 200 m of coast south of Elizabeth Street. Along this section there is a remnant erosion scarp and some evidence of previous rock work that is no longer effective. Earlier photos (No 5 in the report) show a random collection of rocks along the toe of the embankment that are too small to serve any useful purpose. These rocks have now mostly become covered in sand as beach levels have recovered.

North of Elizabeth Street there is approximately 200 m of coast to the end of the residential development at 1 Shaw Road, next to Coronation Park. This part of the coast was also part of the dune enhancement programme in April 2011 but, as happened along the southern section, the rebuilt dune was lost in the June 2011 storms. Here the present situation is quite different to that south of Elizabeth Street in that there is clear evidence of a naturally rebuilding dune, probably assisted by the presence of sand-binding spinifex grass, along this section of the beach. Another contributing factor will be that beach levels are relatively high, which keeps the sea away from the toe of the dune and provides a ready supply of dry sand, above high tide.

While it might be expected that alert residents would soon notify Western Bay of Plenty District Council of any damage to the existing revetment, it is expected that Council staff would inspect the works on a reasonably regular (say 3-monthly) basis, and look for signs of scour or displaced rock,s and carryout any necessary maintenance. The only recommendation that arises out of this report concerning the existing revetment, is for the Council to work with the community and support the planting of sand-binding grasses (spinifex) along the land behind the top of the revetment and for these grasses to be encouraged to grow down over the front of the rocks. To facilitate propagation of these plants, consideration can be given to adding sand to fill in the gaps between the rocks. Sand scraped from the inter-tidal zone could be used for this purpose. Evidence of the success of planting efforts like this can be seem at the southern end of the Shaw Road revetment, next to Two Mile Creek.

The WBPS are seeking some form of erosion protection along the coast north of the end of the present revetment to Coronation Park. Having considered the options, it is clear that doing nothing is not an acceptable solution and further dune enhancement is unlikely to provide the level of protection needed.

Hence, it is recommended that the existing rock revetment be extended, in the same form, through to Elizabeth Street thus providing protection works that could be expected to withstand most storms. North of Elizabeth Street, the coast appears to be somewhat less vulnerable and a compromise solution that capitalises on the natural dune building capacity that is presently exhibited is suggested. Hence, the recommendation is to pull back, or otherwise remove to a stockpile, the accumulated dune sand and grasses, and build a half-height rock revetment upon which the sand earlier removed would be placed and additional sand added, if required, to cover the rocks. Certain requirements concerning the design of the rock revetment are noted in the report. It is also acknowledged that this proposal would not provide the same level of erosion protection that would be enjoyed by those with properties to the south of Elizabeth Street that would effectively be fully protected.

It may be a moot point but it appears that the rock revetment, and the area to the north where protection is required, are presently above Mean High Water Spring tide and, thus, consent jurisdiction may lie with WBPDC at this time rather than the Regional Council. If the beach scours, this situation would, presumably, change.

A2836493

ATTACHMENT C

CONTENTS

A2836493

ATTACHMENT

1. Background

Waihi Beach is described as a 9 km long, straight 200-300 m-wide Holocene barrier beach. It is situated 35 km northwest of Tauranga and, at its southernmost end, forms a tombolo attached to Bowentown Head. According to Harray and Healy (1978)[1], the beach forms the northernmost section of the long sandy littoral system of the Bay of Plenty.

Development of Waihi Beach began in the latter part of the 19th century, initially as a health resort for miners and gold battery workers. Further settlement occurred throughout the 20th century beginning in the 1920s. Development extended southward to Two Mile Creek between 1948 and 1951 and further subdivision occurred in 1957 along with formation of The Loop in 1959.

Erosion of the foredunes was first reported in the 1950s following severe storms. Storms that occurred in the period from the mid-1950s to the late-1960s resulted in reasonably significant erosion along much of the developed Waihi Beach shoreline.

In 1962 the outlet of Two Mile Creek was confined between timber training walls to prevent migration of the mouth. These works resulted in significant accretion of the shoreline immediately to the south. In addition to the training walls, a 140 m-long timber seawall was constructed to protect nine threatened beachfront properties along the southern end of Shaw Road. In 1969 a steel post and timber rail seawall, backfilled with rock, was constructed along Shaw Road together with 12 m-long gabion groynes spaced at 40 m intervals. This was followed in 1970 by the completion of a similar seawall to protect The Loop and training walls were also built to confine Three Mile Creek. In 1975 the Shaw Road seawall was extended northwest as far as Hinemoa Street, and in 1983 a similar seawall was constructed to protect Glen Isla Place.

Permits issued in September 1983 provided for additional rock to be placed seaward and over sections of the original steel and timber seawall. Much of the rock used was not large enough to provide adequate long-term protection and by around the mid-1990s significant parts of the seawall, including some of the original timber structure not reinforced with rock, had fallen into disrepair.

In 2003, Western Bay of Plenty District Council (**WBPDC** or **the Council**) commissioned Tonkin and Taylor Limited (**TTL**) to prepare the design and costing for a new rock revetment at Waihi Beach that would replace a deteriorating existing structure and protect beachfront property in a 1 in 50 year storm event. The area to be protected extended from Coronation Park at the northern end of Shaw Road to Seaforth Reserve, south of Glen Isla Place, and included dune rehabilitation and ancillary works, primarily at the northern end. The Council subsequently sought the necessary permits to enable this work to be undertaken.

In a decision dated 13 April 2006, Environment Bay of Plenty (**the Regional Council**) granted Western Bay of Plenty District Council those consents for which the Regional Council was the consent authority and otherwise recommended that the Minister of Conservation grant consents for a new seawall at Waihi Beach, being a restricted coastal activity. These were appealed to the Environment Court and the council decisions were, effectively, upheld in the Court's decision

[1] Harray, K.G; and Healy, T. R; (1978): *Beach Erosion at Waihi Beach Bay of Plenty. New Zealand*, NZ Journal of Marine and Freshwater Research 12 (2): 99-107.

dated 30 November 2007[2]. A decision from the Minister of Conservation granting the restricted coastal activity parts of the application followed on 26 April 2008.

The physical works, which included the new rock revetment and also dune enhancement works, began after Easter 2010 starting from the southern end of The Loop. By the end of the 2010 construction season on 25 October 2010, works had been completed to around 91 Shaw Road. Work on the remaining northern section of the revetment commenced after Easter 2011 and was noted by the writer during a site visit on 9 August 2011 as being close to completion. The northern end of the present revetment presently terminates at the beach access path between 41 and 43 Shaw Road.

North of the new rock revetment, the proposal provided for dune enhancement through to Coronation Park. Sand for this work was sourced from off-site as well as from maintenance of the stream outlets at Two- and Three-mile Creeks, and from the inter-tidal zone (beach scraping). Much of the sand placed during the dune enhancement work was lost from the dune during subsequent storm events in mid-June 2011 when the beach was lowered by up to 1.0 m.

The coastline to the north of the rock revetment (from 43 Shaw Road) is vulnerable to storm erosion and the risks of property encroachment and, possibly, housing damage, are of concern to the landowners and residents along this section of the coast, northward to Coronation Park.

Because of coastal erosion concerns over the years, residents have fortmed the Waihi Beach Protection Society Inc[WBPS], who have now confirmed that they wish to seek the necessary resource consents to provide coastal protection from the northern end of the existing rock revetment at 41 Shaw Road through to 1 Shaw Road (at the boundary of Coronation Park).

I was subsequently engaged by WBPS to review the proposal and report on the most appropriate options to protect property along this section of Waihi Beach.

The report that follows describes my findings from the site visit on 6 May 2016.

2. Site Visit

On Friday 6 May 2016, I travelled to Tauranga and visited Waihi Beach with Mr Chris Parkinson and Mr Ivan Tottle representing the WBPS, and also Mr Andy Kennedy, who owns Flat White Café on Elizabeth Street. The tide was close to low at the time.

i) After viewing Waihi Beach from Bowentown Head, the first stop on the beach was at the rock revetment along The Loop, which was completed in October 2010. These works extend 430 m to the south from Ayr Street. The revetment remains in sound condition without having any apparent adverse effects [See Photo No 4].

ii) We then inspected the southern end of the Shaw Road rock revetment (just north of Two Mile Creek) adjacent to Mr Parkinson's house at 1 Edinburgh Street, where it meets the start of Shaw Road. Here, the works are in good condition. The beach was high and there was evidence of sand filling in amongst the rocks in the lower parts of the revetment along its toe. At the southern end, closer to Two Mile Creek, native grass (spinifex) was growing well from the top of the revetment down the face of the revetment to the beach (Refer Photo No 1). From this location, the revetment extends some 590 metres

[2] Environment Court Decision A098/2007.

ATTACHMENT

northward to its northern end at the beach access track on the boundary between 41 and 43 Shaw Road.

iii) From the northern end of the rock revetment there is approximately 200 metres of coast that is largely unprotected ending at the beach access stairs off the end of Elizabeth Street. Along this section there is a remnant erosion scarp and some evidence of previous rock work that is no longer effective. A dune enhancement programme was undertaken here around April 2011 but the rebuilt dune was washed away during storms that occurred in June 2011. Photo No 5 shows what was left of the rebuilt sand dune after the June 2011 storm event. Photo No 6 shows the same section of the coast during my site visit on 6 May 2016. Most of the loose collection of rocks along the toe of the embankment, visible in Photo No 5 are too small to serve any useful purpose. These rocks have now mostly become covered in sand as beach levels have recovered.

iv) The developed section of the coast to the north of the Elizabeth Street access stairs extends approximately 200 metres to 1 Shaw Road at the boundary of Coronation Park. This area, as noted, was also part of the dune enhancement programme in April 2011 but, as happened along the southern section, the rebuilt dune was lost in the June 2011 storms. Photo No 7 shows the state of what remained of the dune at the time of my previous visit on 9 August 2011. The current status (on 6 May 2016) is shown in Photo No 8. Clearly this is quite different to the situation to the south of Elizabeth Street (Photo No 6). The encouraging sign here is that there is clear evidence of a naturally rebuilding dune, probably assisted by the presence of sand-binding spinifex grass, along this section of the beach, as well as the fact that beach levels are relatively high, which keeps the sea away from the toe of the dune, and provides a ready supply of dry sand, above high tide.

3. The state of the existing rock revetment

The existing rock revetment, which has mostly been in place for 5 years has performed very well and it appears to be in sound condition with no obvious signs of rock displacement, or scour along the toe. Revetment-induced beach lowering, often predicted as an adverse effect of a sea wall, does not appear to have occurred here. The beach, it was noted at the time of my visit, was relatively high and there was evidence of sand filling in the lower parts of the revetment along its toe. At the southern end near Two Mile Creek, native grass (spinifex) was growing from the top of the revetment down the face to the beach (Refer Photo No 1). Furthermore, there were no signs of scour or erosion adjacent to either end of the revetment apparent during my site visit. Thus, so called 'end effects', again often predicted, have not occurred.

Similarly, at the northern end, at 41 Shaw Road, the rockwork was stable and there was no evidence of either scour along the toe or end effects (Refer Photo No 2. Again the level of the beach was relatively high and sand was accumulating amongst the rocks (Refer Photo No 3). If planting can become established, this could be expected, in time, to assist in the formation of a sand dune.

It is understood that some wave overtopping does occur from time to time during storms. This is mostly in the form of wave splash and appears to be reasonably well-tolerated as no signs of erosion above or behind the wall were apparent.

ATTACHMENT

3. Discussion of options for coastal management

Photos Nos 6 and 8 show, respectively, the beach to the south and to the north of Elizabeth Street. Despite both parts of the coast showing several metres of dry beach above high tide level, the appearances are, physically, quite different.

The view shown in Photo No 6 shows the area of interest that extends from 23 Shaw Road to 41 Shaw Road. Beach levels, as has been noted, were relatively high. A remnant erosion scarp, 1-2 metres high, can be seen but the rocks along the toe that were previously visible (Photo No 5) have largely been covered in sand.

The coast to the north, shown in Photo No 8, where a dune enhancement project was also carried out in April 2011, indicates that what can be seen of the erosion scarp, left after the June 2011 storms and apparent in August 2011, has adopted a somewhat more stable, vegetated face. More encouraging is the natural build-up of sand along the toe of the embankment. Given time and an absence of storms, this could be expected to form a natural dune face, although, on its own this is unlikely to accumulate sufficient reserve sand to be able to fully resist significant storm action.

Rock revetment

The existing rock revetment has been well-designed and constructed. It is now considered to be a stable structure able to prevent erosion of the shoreline and loss of property during storm action. As has already been noted, for the time being at least, the revetment does not appear to be having any adverse effects and nor is it suffering from any of the more common issues, such as toe scour, loss of sand from the supporting embankment, excessive wave reflection, or impacts on adjacent coastlines, that sometimes occur when rock revetments or seawalls are constructed. How long this situation will last is unknown. The prospect of sea level rise may become a factor in due course and will need to be considered as this will increase the risk of waves over topping the structure and eroding the embankment behind the rocks. It is also clear that, under the right conditions, such as relatively calm seas and the presence of a dry beach between the revetment and high tide, sand can move into and occupy the spaces between the rocks. It is assumed that alert residents would soon notify the Council of any damage to the revetment and that the Council does inspect it from time to time and carries out any necessary maintenance.

Given the success with spinifex planting at the southern end of the revetment, a worthwhile option will be to introduce a similar programme of planting on the land along the top of the revetment and encourage this to propagate down the face of the revetment as has happened at the southern end by Two Mile Creek. This would provide some protection against damage from wave ovetopping and, more importantly, encourage the trapping of sand in amongst the rock work. The objective here will be to promote the formation of dune face that might, ultimately, cover the revetment. With proper controls, this process could probably be usefully assisted by scraping sand from the tidal zone and placing it on the revetment.

From northern end of the revetment to Elizabeth Street

This section of the beach includes 23 to 41 Shaw Road (SeePhoto Nos 5 and 6). The options here are:

ATTACHMENT

- Do nothing and let nature take its course. The likely consequence of this will be to risk the loss of perhaps several metres of land in a severe storm. Ultimately, the Norfolk Pines would be lost and houses would probably be placed at risk.
- Rebuild the dune system. The only viable way to do this is as before, by bringing sand from elsewhere. Natural dune growth cannot be relied upon given the frequency with which storms impact the Waihi Beach shoreline. Given what happened in June 2011, although aesthetically sound, this option seems likely to waste, time, effort and money without offering much, if any, reduction in the erosion risk.
- Extending the present seawall to Elizabeth Street offers the only sure way of preventing erosion along this section. This would necessarily have to be a properly designed full height revetment constructed to the same standards as the existing revetment.

From Elizabeth Street to Coronation Park

This includes the properties from 21 Shaw Road (Flat White Café) to 1 Shaw Road at the boundary of Coronation Park. As has been noted, this section of the coast is presently exhibiting quite different characteristics in that there are obvious signs of natural dune growth (See Photo Nos 8 and 9). The dune growth suggests that this part of the coast is somewhat less vulnerable than further south. Erosion does occur though as evidenced by the events in June 2011, which destroyed the enhanced dune built some 2 months earlier. It can be taken that doing nothing and dune enhancement are not going to provide an appropriate level of coastal protection. Therefore the options are either to build a rock revetment in the same manner as further south, which would effectively remove most of the risk of erosion occurring in the future, or to consider a compromise solution. The dune growth that has occurred here offers some encouragement that there may be a solution that would provide adequate protection whilst retaining the natural character of the beach. This would require removal of the accumulated dune sand to a stockpile for later replacement, and construction of a half-height rock revetment against the exposed embankment. This would have to be founded as if it was to become the foundation for a full strength revetment should it become necessary at some time in the future. It would, thus have to be built deep enough to resist scour in the event of a storm. If exposed, some overtopping by wave action could be expected from time to time although this may be able to be controlled by planting etc., and may not not cause too many problems. Once constructed, the dune sand would be replaced and further sand added if necessary in order to cover the rock revetment. In the likely event that the sand covering the rocks is removed in the future by wave action, the underlying rock revetment would act as a type of "backstop" wall and protect the toe of the embankment. Before that happens, regrowth of the spinifex grass should be encouraged. It must be acknowledged that this proposal would not provide the same level of erosion protection that would be enjoyed by those with properties to the south of Elizabeth Street that would effectively be fully protected. In the event of major storm activity, unless there had been sufficient time for a substantive sand dune to build, the prospect of erosion of the embankment behind the revetment, and some loss of property, should be considered .

There would need to be a transition from the full height revetment south of Elizabeth Street along perhaps 50 metres in front of Flat White Café to the half height revetment. If preferable to preserve the natural character in front of Flat White Café, I can see no reason why the transition from a full to half-height revetment could not take place across the end of Elizabeth Street. It is assumed that this form of protection would extend more or less from Elizabeth Street to the last

ATTACHMENT

property before Coronation Park (1 Shaw Road). Beyond that the coast is pretty much in a natural state and does not appear to have been eroded much in recent years. Having said that, it is also noted that there is no housing or or infrastructure present, until Leo Street that would be placed at risk in the event of storm erosion. Although not visited on 6 May 2016, I understand that the natural coast along Coronation Park and beyond enjoys a reasonably wide beach and is not considered particularly vulnerable.

5. Recommendations

The recommendations concerning management of the shoreline at the northern end of Waihi Beach that arise out of this report are:

1) Extend the existing rock revetment from 43 Shaw Road to Elizabeth Street. The extension should be designed and constructed to the same standard as the existing with appropriate attention to scour depth for foundations, rock sizes and the consequences of wave run-up and overtopping.

2) From Elizabeth Street to Coronation Park, construct a half-height revetment beneath the accumulated dune sand. Removal and stockpiling of the sand may be necessary although, if the revetment can be built in sections, in good weather it may be possible to pull the sand away from the embankment for immediate replacement after the revetment has been built. As note earlier, this revetment would need to be designed and built at a low enough level to avoid scour and allow for its future use, if required, to provide the foundations for a full strength revetment. The armour layer should be capable of withstanding storm waves. Active support for planting spinifex or other suitable sand-binding vegetation on the exposed face of the remaining embankment and across the sand cover, should be provided.

3) Tonkin and Taylor Ltd., as designers of the existing works are expected to have sufficient knowledge of the wave parameters and design conditions to be able to design the new, works both to the south and north of Elizabeth Street.

4) Beach scraping, preferably during an accretion phase on the beach can be considered as a viable source of sand to enhance dune growth.

5) Along the top of and behind the existing revetment, the community should be encouraged to plant spinifex and promote its growth down the face of the revetment as has happened at the southern end of the revetment by Two Mile Creek. Some means of preventing this grass from spreading on to adjacent lawns and garden may be necessary.

6) While not part of this study, it is noted that the stream outlets at Two and Three-mile creek are not helpful from a coastal management perspective.

John Lumsden
30 June 2016

ATTACHMENT L

6. Site visit photographs (6 May 2016)

Photo No 1 Revetment at south end of Shaw Road adjacent to Two Mile Creek (6 May 2016)

Photo No 2: Northern end of rock revetment at 41 Shaw Road (6 May 2016)

ATTACHMENT

Photo No 3: Sand covering toe of rock revetment at northern end (6 May 2016)

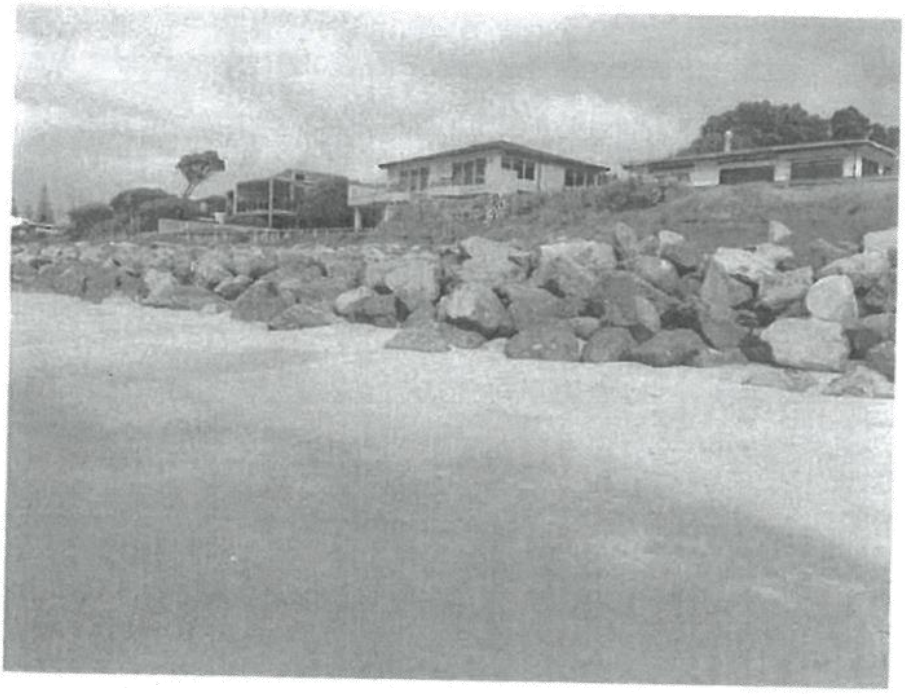


Photo No 4: General view of The Loop rock revetment (6 May 2016)

ATTACHMENT

Photo No 5: at 23 Shaw Road, south from Elizabeth Street beach access steps (after dune enhancement destroyed, 19 June 2011)

Photo No 6: View to the south from the Beach access steps at Elizabeth Street (6 May 2016)

ATTACHMENT C

Photo No 7: Dune Enhancement area north of Elizabeth Street (9 August 2011)

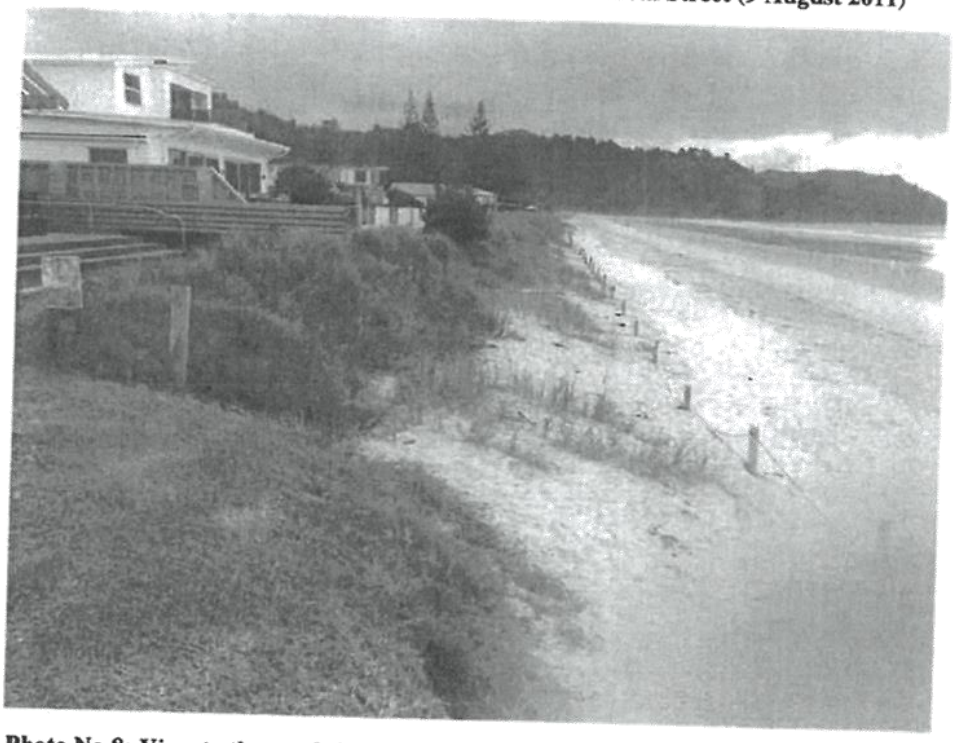


Photo No 8: View to the north from the Beach access steps at Elizabeth Street (6 May 2016)

ATTACHMENT

Photo No 9: Waihi beach looking south from northern end (3 Shaw Road) near Coronation Park (6 May 2016)

Photo No 10: Access stairs at Elizabeth Street showing change in shoreline character (6 May 2016)

Council Policy

Western Bay of Plenty District Council

Coastal Erosion Responses Policy 2017

1. Relevant Legislation

- Local Government Act 2002
- Local Government Act 1974
- Resource Management Act 1991
- Civil Defence Emergency Management Act 2002
- Reserves Act 1977

2. Policy Objectives

2.1. To provide a framework for consistent decision-making by Council where Council-owned coastal land is affected by coastal erosion or subsidence.

2.2. To respond to coastal erosion and subsidence of Council-owned coastal land in a way that:

(a) gives effect to the New Zealand Coastal Policy Statement;

(b) gives effect to the Bay of Plenty Regional Policy Statement;

(c) takes account of the Bay of Plenty Regional Coastal Environment Plan; and

(d) Is affordable for the affected community both now and into the future.

3. Background

3.1. Physical Environment

Coastal and inner harbour erosion hazards result from the interaction of coastal and harbour processes with human activities and structures, and can adversely affect the economy, health, wellbeing and safety of people and communities. Where coastal / inner harbour erosion or flooding threatens valuable coastal and inner harbour land and infrastructure, coastal protection structures have commonly been constructed. While these coastal protection structures may protect the land and assets behind them such works interfere with the natural functioning of coastal and inner harbour processes.

Hard coastal defences are not only costly to construct but they have a finite lifespan and require maintenance and eventual upgrading or replacement. With currently rising sea levels the cost associated with the maintenance of defences will certainly increase.

Council Policy

Western Bay of Plenty District Council

Coastal Erosion Responses Policy 2017

Natural dune systems are a defence against coastal erosion. Enhancement of dune systems is to be encouraged.

New Zealand has experienced an average relative sea-level rise of 18 cm over the past 100 years and as a result coastal storm inundation has been experienced in the past, is a problem now and will become more frequent in the future. Over time, with a predicted sea level rise of +1 m in the next 100 years coupled with more frequent and intense weather events, what we currently consider to be extreme 1 in 100 year coastal hazard events will trend to becoming the average event. In the future 1 in 100 year coastal events will lead to deeper flooding and greater economic and social consequences.

In the next 20 to 30 years coastal hazard events may be manageable but beyond this inundation risks will grow much more rapidly even with modest sea level rise. Communities must therefore consider all the available options now to avoid locking in expensive and irreversible planning, investment and development decisions. Today's coastal properties may survive for the next 30 years (the life of an average mortgage) but whether they will remain a viable investment for the 30 years after that is uncertain.

3.2. Council Obligations

In most cases Council is not under any legal obligation to protect its own land or private property from erosion.

There is a view that by Council providing limited protection to some private properties in the past it is obliged to continue this approach or provide compensation if Council changes its approach to erosion. There are some counter arguments to this view. If a policy change is introduced for a good reason there is no case for compensation. Changes in policy also frequently reflect changes in Central Government's and Regional Council's approaches to erosion or the emergence of new research. It could also be argued that those property owners who have been defended in the past have already enjoyed considerable benefit at public expense, therefore a former injustice to the ratepayer is being put right.

However, each situation will be assessed on its merits and Council's general approach to erosion mitigation is set out in this Policy. In particular, there are some areas such as the existing rock revetment wall at Waihi Beach that have their own unique set of legal and consenting circumstances that will be relevant in determining Council's response. Waihi Beach rock revetment wall is subject to a resource consent condition requiring Council to undertake comprehensive investigations by 31 December 2020 to determine the best practicable option for the long term management of the coastal hazard risk at Waihi Beach.

Council Policy

Western Bay of Plenty District Council

Coastal Erosion Responses Policy 2017

3.3 Community Values

Coastal protection structures may restrict public access and reduce existing values along the coastal and inner harbour margin, such as recreational, aesthetic, and natural character values. These values (as opposed to property values) are rarely quantified and therefore are generally not reflected adequately in decision-making. This results in a conflict between the protection of (often private) property values, and retention of the public asset, the inner harbour and coastal system itself and its associated values.

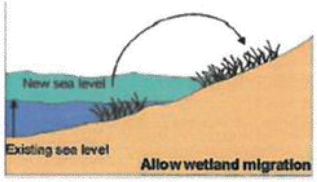
While a policy that explicitly provides future funding only for the exclusive protection of *Council-owned coastal land and strategic assets* may prove unpopular from a local, short term perspective, from a wider district and long term perspective it makes economic and intergenerational sense. Any public intervention to protect private property on the inner harbour or coast would be a cost to ratepayers and a gain to individual property owners.

4. General Approach to Erosion Mitigation

4.1. Council will adopt a precautionary approach to inner harbour and coastal erosion protection and to the future subdivision and intensification of the inner harbour margins and coastal settlements. In particular, where Council has good information on the level of hazard risk or the area is already prone to erosion Council will ensure that any new subdivision, landuse or other development is located and designed so as to avoid the need for future inner harbour and coastal hazard hard engineering protection works.

4.2. For *Council-owned coastal land* potentially at risk from inner harbour and coastal erosion hazards, Council will undertake an assessment (refer to Section 5) to determine the most appropriate erosion management option of "let nature take its course", "adaptive approach" or "hold the line" which means:

- "Let nature take its course" - coastal processes of erosion (the gradual wearing away of beaches and cliffs by the natural wave action) and accretion (the gradual build up of beaches and dunes from sand deposited by natural wave action) are left to occur naturally, without any human intervention. For currently undeveloped inner harbour and coastal margins Council will promote a "let nature take its course" approach to allow the dynamic natural processes (including sea level rise) to take place.

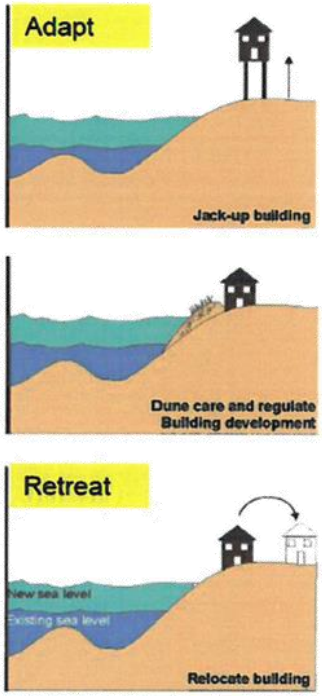


Council Policy

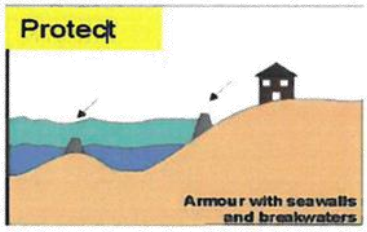
Western Bay of Plenty District Council

Coastal Erosion Responses Policy 2017

- "Adaptive approach" - manage hazard situations by abandoning assets or relocating assets and activities away from the coastal processes threatening them, thereby removing the hazard. Council will assess the merits of taking an "adaptive approach" on the future management of inner harbour and coastal erosion. This means taking at least a minimum 100 year view in relation to the effects of sea level rise and climate change.



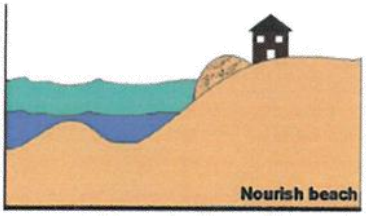
- "Holding the line" - protect the existing foreshore and/or strategic assets from further erosion, in line with the New Zealand Coastal Policy Statement, by promoting the use of soft engineering options (dune replanting/beach nourishment) over hard engineering solutions (timber seawalls/rock revetments) where appropriate. Council will need to balance the life expectancy and value of the strategic assets to be protected and the lifespan of any proposed coastal protection structure. Hard rock structures have a longer lifespan (+80 years) than timber structures (30-50 years) but are more costly to construct, maintain and upgrade.



Council Policy

Western Bay of Plenty District Council

Coastal Erosion Responses Policy 2017



Diagrams source Ministry for the Environment 2001 Guidance

4.3. District Plan Provisions

- Council will continue to apply the rules in the District Plan that cover subdivision and development in the Coastal Erosion Areas and Coastal Inundation Areas of the residential zones of Waihi Beach and Pukehina and the Coastal Erosion Areas along the rural open coast.

- Council will assess the merits of restricting development intensification and the introduction of setback rules, similar to those in the Coastal Erosion Areas and Coastal Inundation Areas of Waihi Beach and Pukehina, for those areas of the inner harbour prone to erosion, or likely to be inundated by sea level rise, through future Plan Changes to the District Plan. This is to avoid locking the Council into expensive and potentially irreversible decisions in relation to the provision of infrastructure.

4.4. Council Advocacy and Investigations

- Council will advocate to Central Government for better national guidance on natural hazards (including coastal erosion). Council supports the progress being made in the development of a National Policy Statement on Natural Hazards.

- Council will advocate to the Bay of Plenty Regional Council to consider the introduction of a rule in any future Regional Coastal Environment Plan to extinguish existing use rights so that buildings damaged by coastal erosion cannot be rebuilt as of right and replacement is either a prohibited or discretionary activity.

- Council will within the first 10 years of this policy investigate modelling the inundation effects of a minimum 1m sea level rise on the Tauranga inner harbour, Maketu estuary and Little Waihi estuary.

4.5. Provision of information and education

- Council will note the possibility of erosion or inundation on the Land Information Memorandum (LIM) of the properties in locations that formed part of the OPUS report entitled "Tauranga Inner Harbour High Level Coastal Erosion Study August 2015."

Council Policy

Western Bay of Plenty District Council

Coastal Erosion Responses Policy 2017

- Council will continue to provide the community with the latest relevant technical investigations and reports.

5. Criteria for assessing coastal erosion responses

5.1 Where coastal erosion of Council-owned coastal land affects existing coastal protection structures and/or strategic assets, any decision to maintain, replace, relocate or abandon that structure or strategic asset will only be made after consideration of the criteria included at section 5.3 below.

5.2 Where coastal erosion of Council-owned coastal land occurs in an area where there are no existing coastal protection structures but that coastal erosion is affecting or is likely to affect a strategic asset, then any decision by Council to respond will only be made after consideration of the criteria at section 5.3 below.

5.3 Assessment criteria:

(a) Assess whether there is a clear need for the works in terms of a risk assessment based on a methodology that assesses the inherent threat to life and/or property or existing nationally or regionally important infrastructure;

(b) Take a holistic approach to reduce any significant adverse environmental effects elsewhere in the relevant coastal system irrespective of the ownership of potentially affected coastal land;

(c) Address the issue of end effects of the proposed works where it affects private or public land;

(d) Consider whether the proposal maintains and enhances public walking access to the inner harbour or open coast, or where that is not practicable provides alternative linking access close to the coastal marine area;

(e) Consider whether the proposal will not or may not have an adverse effect on amenity values (as defined in section 2 of the RMA);

(f) Consider whether the proposal demonstrates and includes the outcomes of consultation with major stakeholder and community groups;

(g) Consider the ability and willingness of individuals and/or the wider community to pay for the costs of maintaining the shoreline in a fixed position indefinitely;

(h) Consider whether the construction and maintenance costs of protection works are greater than the capital value of the strategic assets to be protected;

(i) Consider whether the adverse effects of physical mitigation works on the natural character, cultural sites and values, historic heritage and public access to the environment are greater than the value of the strategic assets to be protected;

(j) Recognise that the NZCPS generally discourages hard protection measures but recognises in some cases they may be the only practicable means of protecting existing nationally or regionally important infrastructure;

(k) Recognise and consider the environmental and social costs of permitting hard protection structures to protect private property, and consider whether there is any significant public or environmental benefit before locating these structures on public land;

(l) Consider, where existing inner harbour or coastal protection structures have failed, whether replacement is a sustainable option;

(m) Consider, where erosion occurs so rapidly, whether there is insufficient time to construct protection works; and

(n) Consider what action is appropriate when property owners decide to relocate their own buildings as an individual response to erosion issues.

6. Council Statutory Responsibilities

6.1 Council administers and is a consent authority in terms of the Reserves Act 1977.

6.2 Council administers inner harbour and coastal margin *esplanade reserves and strips* on behalf of all ratepayers, residents and stakeholder groups but also recognises the concerns of special interest groups.

6.3 Council recognises that it has responsibilities under other legislation, particularly:

(a) Resource Management Act 1991 – The particular provisions of the Resource Management Act (RMA) that Council is required to recognise and provide for within Part II (Matters of National Importance) of the Act and relate to the preservation of the natural character of the coastal environment, the maintenance and enhancement of public access to and along the coastal marine area, and the relationship of tangata whenua to their coastal waahi tapu sites and the exercise of kaitiakitanga;

(b) Local Government Act 2002 – Managing the effects of erosion on Council's strategic assets using a range of approaches gives effect to the purpose of local government under the Act to meet the current and future needs of communities for good-quality local infrastructure in a way that is efficient and most cost-effective; and

(c) Civil Defence Emergency Management Act 2002: The Act requires all levels of government to work collaboratively to reduce the risk to people and their property through the sustainable management of hazards.

Council Policy

Western Bay of Plenty District Council

Coastal Erosion Responses Policy 2017

7. Timeframe of this Policy

7.1 The policy is to take an initial 30 year timeframe

7.2 The policy will be reviewed every 10 years or as required

8. Associated Council Policies and Plans

- Western Bay of Plenty District Council's Long Term Plan
- Western Bay of Plenty District Council's Annual Plan
- Western Bay of Plenty District Council Operative District Plan
- Western Bay of Plenty District Council; Reserve Management Plans
- Western Bay of Plenty District Council; Coastal Assets Management Plans
- Western Bay of Plenty District Council; Utilities Assets Management Plans
- Western Bay of Plenty District Council; Transportation Assets Management Plans
- Western Bay of Plenty District Council Significance and Engagement Policy

9. Relevant National and Regional Policies and Plans

9.1 New Zealand Coastal Policy Statement

9.2 Bay of Plenty Regional Policy Statement

9.3 Bay of Plenty Regional Coastal Environment Plan

10. Definitions

Affected community means in relation to any funding arrangement for proposed coastal erosion responses, the community that will contribute to the cost of any such response/s.

Coastal erosion means in relation to Council-owned coastal land, erosion resulting from the interaction of coastal and harbour processes, and/or subsidence of that land.

Council-owned coastal land means esplanade reserves, coastal walkways and all other foreshore land owned by Council.

Council Policy

Western Bay of Plenty District Council

Coastal Erosion Responses Policy 2017

Council-owned coastal protection structure means measures aimed at protecting Council-owned coastal land and strategic assets from the effects of coastal erosion.

Esplanade Reserves means a reserve within the meaning of the Reserves Act 1977:

(a) which is either

(i) a local purpose reserve within the meaning of section 23 of that Act, if vested in the territorial authority under section 239; or

(ii) a reserve vested in the Crown or a regional council under section 237D; and

(b) which is vested in the territorial authority, regional council, or the Crown for a purpose or purposes set out in section 229 of the RMA 1991.

Esplanade Strips means a strip of land created by the registration of an instrument in accordance with section 232 of the RMA 1991 for a purpose or purposes set out in section 229 of the RMA 1991

Strategic asset(s) means for the purposes of this policy that Council considers the following assets to be strategic assets:

- The roading network as a whole
- Reserves listed and managed under the Reserves Act 1997 excluding:
  (a) Reserves identified for investigation for disposal in an adopted Reserve Management Plan
- Land held under other Acts or as fee simple but listed as reserves or considered as reserves.
- Water reticulation network as a whole
- Wastewater plant and network as a whole
- Stormwater reticulation network as a whole
- Library network
- Pensioner housing network.

Group	Policy, Planning and Regulatory Services	**Contact (3rd Tier Manager)**		Policy and Planning Manager	
Supersedes	n/a				
Creation Date	28 August 2017	**Resolution Reference**		PP	
Last Review Date	n/a	**Resolution Reference**		PP n/a	
Review Cycle	Every 10 years			**Date**	28 August 2027
Authorised by	Policy Committee			**Date**	16 August 2016

Appendix 6 – Analysis in accordance with Coastal Erosion Response Policy

Coastal Erosion Options 4, 6 and 7 from Section 5 of the Beca 5 July 2019 Review - See following pages as copied from original spreadsheet output analysis.

Criteria		4.2	Dune Enhancement (Northern termination to Flat White)	Council score	Private Score	6	Extend Seawall north to the Flat White café	Council score	Private Score	7	Backstop Wall between Flat white and existing sea wall	Council score	Private Score
Policy 5.3	Criteria		Comment				Comment				Comment		
a	Assess whether there is a clear need for the works in terms of a risk assessment based on a methodology that assesses the inherent threat to life and/or property or existing nationally or regionally important infrastructure;		Threat to life is low whether or not dune enhancement takes place. No signiificant Council owned structures are affected, only private strucutre. Dune enhancement will reduce the risk of further ocean encroachment on private property in the short term, however longer term with sea level rise, the risk of loss tof private property returns. No significant national or regional infrastructure is at risk.	3	7		Threat to life is low. The risk assessment indicates risk to loss of beach amenity both with an without wall. Private property will then come under increasing threat without the wall. With the wal, threat is reduced	3	8		Threat to life is low whether or not the backstop wall is installed. Installation of a backstop wall will reduce the risk of further ocean encroachment on private property, however installation of the wall is not typically possible in some properties due to lack of space between the house and the current MHWS. No significant important infrastructure is at risk.	3	7
b	Take a holistic approach to reduce any significant adverse environmental effects elsewhere in the relevant coastal system irrespective of the ownership of potentially affected coastal land;		In the short term, the dune system will provide protection to private property with no adverse environmental effects. However loss of dunes is inevitable longer term. Erosion will therefore continue into private land.	7	7		Without a wall, the dunes will erode and will be lost in the long term. The rock seawall will prevent these significant environmental effects	10	10		Without a backstop wall, coastal land will continue to erode. In the short term, the dune system will respond, however as stated in the Beca report, loss of dunes is inevitable longer term. Erosion will therefore continue private land until it slows at the backstop wall. Significant adverse environmental effects will be slowed by the backstop wall.	7	8
c	Address the issue of end effects of the proposed works where it affects private or public land;		Dune enhancement end effects are not considered an issue with soft engineering. However where the dune enhancement abuts existing sea walls, end effects from the sea wall need to be considered and reassesed to improve current deficiencies	8	8		A properly designed hard structure or wall would properly address end effects. It is assume this would the case in both the design and construction phases.	10	10		End effects will in the short term be addressed with the soft engineering approach as desireably the backstop wall would be buried well back from the face of the dunes. However longer term, as the backstop wall is exposed, end effects are likely to become noticeable and need to be designed for.	8	8
d	Consider whether the proposal maintains and enhances public walking access to the inner harbour or open coast, or where that is not practicable provides alternative linking access close to the coastal marine area		Dune enhancement will provide a dry beach in the short term, but is at risk of serious damage and loss during erosion cycles and longer term from sea level rise.	8	3		In the short term public walking access on the beach is retained, but as natural coastal processes continue, the beach is likley to be lost as the as the beach level will lower.	4	4		In the short term public walking access on the beach is retained as the dune system and natural coastal processes continue. In the longer term, as the backstop wall is exposed, it is likley the beach level will lower.	6	3
e	Consider whether the proposal will not or may not have an adverse effect on amenity values (as defined in section 2 of the RMA);		Amenity values are enhanced with dune enhancement. However there is no guarantee that the amenity values will be sustainable as sea level rises and dunes come under further attack	8	3		Construction activity will result in short term adverse amenity effects. Longer term use of the beach will be affectedas beach levels lower. Oher disbenefits include a large rock barrier to cross when accessing the beach sand.	5	5		Construction activity will result in minor short term adverse amenity effects, with improvement post construction. However in the long term as the backstop wall is exposed, adverse effects will become evident as the back stop wall becomes visible and the beach level reduces.	6	6
f	Consider whether the proposal demonstrates and includes the outcomes of consultation with major stakeholder and community groups		Minimal consultation is understood to have been undertaken, although the Flat White Café has been mentioned.	3	3		Minimal consultation is understood to have been undertaken, although the Flat White Café has been mentioned.	3	3		Minimal consultation is understood to have been undertaken, although the Flat White Café has been mentioned.	3	3

Attachment 6

g	Consider the ability and willingness of individuals and/or the wider community to pay for the costs of maintaining the shoreline in a fixed position indefinitly		The community may be less willing to pay for dune enhancement due to recent local failures of dune enhancement. However this opinion should be tested in consultation with the affected community.	3	3		The community is currently paying for the existing wall in a satisfactory manner. Extending the existing rock wall is likely to be managed in a similar manner. There is probably more willingness to pay for this option as it incorporates a hard structure that is on Council land, with more distance between the dwellings and rock wall.	5	10		The community is currently paying for the existing wall in a satisfactory manner. Extending the system with a back stop wall is likely to be managed in a similar manner. There is probably a great deal of willingness to pay for this option as it incorporates a hard structure.	7	7
h	Consider whether the construction and maintenance costs of protection works are greater than the capital value of the strategic assets to be protected;		The beach is considered a strategic asset however is not at risk of being lost, rather only of change. However private assets are at risk. The value of private assets far exceed the capital cost of the most expensive erosion protection option.	2	8		The beach is considered a strategic asset however is not at risk of being lost, rather only of change. However private assets are at risk. The value of private assets far exceed the capital cost of the most expensive erosion protection option.	2	10		The beach is considered a strategic asset however is not at risk of being lost, rather only of change. However private assets are at risk. The value of private assets far exceed the capital cost of the most expensive erosion protection option.	2	8
i	Consider whether the adverse effects of physical mitigation works on the natural character, cultural sites and values, historic heritage and public access to the environment are greater than the value of the strategic assets to be protected;		Strategic assets are not being protected. Adverse effects of physical mitigation from dune enhancement are minimal, and less than the value of the private assets to be protected. However the level of protection in the long term is considered minimal	1	7		Strategic assets are not being protected. However private assets will be protected. The adverse effects of the physical mitigation on historic heritage, values, access to the environment is minimal. Longer term adverse effects are still likely to be considerably less that the value of the private assets protected.	1	10		Strategic assets are not being protected. However private assets will be protected. The adverse effects of the physical mitigation are minimal initially as soft engineering will dominate. However longer term adverse effects are still considered less that the value of the private assets protected.	1	10
j	Recognise that the NZCPS generally discourages hard protection measures but recognises in some cases they may be the only practicable means of protecting existing nationally or regionally important infrastructure;		This option supports soft engineering only, however protects only private property and no existing nationally or regionally import infrastructure	2	8		Rock Revetment wall mitigation is not the only option for this site, however this option has been successful to date and would likley be the preferred option for protecting private dwellings.	1	10		Soft engineering will dominate in the short term, however longer term the rock back stop wall will be evident.	6	6
k	Recognise and consider the environmental and social costs of permitting hard protection structures to protect private property, and consider whether there is any significant public or environmental benefit before locating these structures on public land;		Enhancing the dunes (soft engineering) is likley to result in an immediate environmental improvement and higher public benefit, There are no hard structures. However longer term benefit will be for private benefit	2	8		A hard structure is most likely the preferred and best option to protect private property. The social benefit of installing the wall includes stable real estate values as well as preserved infrastructure. Private benefit is accrued by the protection of public assets, ie. the beach. In the longer term, locating a rock wall on public land will benefit all.	5	10		The back stop wall will predominantly be located on private property. Ultimately there is negative public benefit as remnant dunes are removed by higher sea levels and the beach reduces in level.	5	10
l	Consider, where existing inner harbour or coastal protection structures have failed, whether replacement is a sustainable option		Similar dune enhancement systems have failed nearby. Consequently this system can not be considered sustainable in either the short or longer term	1	1		The existing rock wall structure is curently sustainable with minimal maintenance required after nearly a decade.	10	10		The existing rock wall structure is curently sustainable with minimal maintenance required after nearly a decade.	10	10
m	Consider, where erosion occurs so rapidly, whether there is insufficient time to construct protection works;		Changes in the dune systems around Flat White Cafe are evident, however are currently slow.	7	7		Changes in the dune structures around the Flat White Cafe are evident, however the changes are currently slow.	7	7		Changes in the dune structures around Flat White Cafe are evident, however are currently slow.	7	7
n	Consider what action is appropriate when property owners decide to relocate their own buildings as an individual response to erosion issues.		Without protection, many houses will have to be moved off site or be lost as they will not be able to be moved back.	5	5		Without protection, many houses will have to be moved off site or be lost as they will not be able to be moved back.	5	10		Without protection, many houses will have to be moved off site or be lost as they will not be able to be moved back.	5	10
				60	78			71	117			76	103

Attachment 6

OPTION	COMMENT
4	**Option 4:** Dune enhancement may be considered, however, it does not address or mitigate the risks posed. This option is unlikely to be accepted by private owners in the area, as this option has already failed nearby.
6	**Option 6:** Extend Sea Wall north to the Flat White Café. A Rock Revetment wall is considred the best option of all for private property owners. Council Policy Analysis suggests an adaptive approach and likely consists of assisting private owners to hold the line. Risks are slightly reduced over other options.
7	**Option 7:** Construction of a backstop wall with minor dune maintenaance appears to be a relativley good option, however, due to the lack of land between the dwelling and the current MHWS, this option will be difficult to complete. While risks are slightly reduced, significant risks remain with this option, and due to the location of the wall is unlikely to be agreed to by all owners.
Summary	**All options** essentially service the needs of protecting property and there is no compelling evidence for Council involvment in holding the line. A case can be made for an adaptive approach for Council to assist and enable private protection works by allowing construction on the beach. It is concluded that private protection will be met best by extending the existing hard structure.
Recommendation	**Recommend: An adaptive approach for Council, supporting a full privately funded project to hold the line until an inevitable sea level rise overwhelms the defences.**

RECOMMENDED OUTCOME:	
	Trial Numbers:
Hold the Line	>120
Adaptive	60-120
Let Nature Take its Course	<60

9.7 TE REREATUKAHIA WASTEWATER SCHEME CONNECTION COSTS

File Number: **A3959447**

Author: **Coral-Lee Ertel, Asset and Capital Manager**

Authoriser: **Gary Allis, Deputy Chief Executive**

EXECUTIVE SUMMARY

In undertaking initial consultation with Te Rereatukahia Marae to implement a CIP funded wastewater scheme, a number of concerns were raised and requested to be presented unedited to Council. They have requested the Mayor attend their next Hui (late February or March) to report on Council's decisions. Council has clear direction and policy to respond to a number of the concerns raised at the meeting. One key concern was the costs to landowners for the connection charge for the proposed wastewater scheme. Council has discretion over the setting of the connection charge in Council's Fees and Charges.

It is clear that the current connection charge of $6,144 will reduce the number that will connect. A charge of $0 such as was applied in Maketu would encourage connection and enable environmental and social benefits to be realised.

RECOMMENDATION

1. That the Asset and Capital Manger's report dated 2 February 2021 titled 'Te Rereatukahia Wastewater Scheme Connection Costs' be received.
2. That the report relates to an issue that is considered to be of low significance in terms of Council's Significance and Engagement Policy.
3. That it is recommended to Council that no connection charge is to be applied to the Te Rereatukahia wastewater scheme.

   OR

4. That it is recommended to Council that Council consults on the introduction of a new targeted rate for the Te Rereatukahia Wastewater Scheme through the 2022/23 Annual Plan that enables landowners to pay the equivalent of a FINCO (currently $6,144.00 +GST) over a 15-year term at an estimated annual cost of $552.60 +GST.

   OR

5. That it is recommended to Council that Council treats Te Rereatukahia as a Papakainga development and consults on the introduction of a new targeted rate for the Te Rereatukahia Wastewater Scheme through the 2022/23 Annual Plan that enables landowners to pay the equivalent of a 50% FINCO (currently $3077 +GST) over a 15-year term at an estimated annual cost of $276.75 +GST.

BACKGROUND

In 2004 - 2005 Western Bay of Plenty District Council (WBOPDC) commissioned CPG Global Consultants to carry out a wastewater investigation, including the design and the associated costs to install a wastewater scheme for Te Rereatukahia Marae. This investigation was to coincide with the installation of the new sewer main from the Resort Pacifica golf course leading to the existing pump station in Wills Road.

The design included reticulating the upper residential development surrounding the Marae and club rooms. The costs were modelled and the resulting Uniform Targeted Rate (UTR) per property was calculated to be between $1,400 and $2,000 per annum (this cost included the pump station repayment of the capital costs).

There was considerable consultation with members from the local Hapu in relation to the alignment of the new sewer and rising main. Council offered to pay for the pump station and rising main to reduce the financial burden on the Marae community. The negotiations were not successful.

Further discussions held with Council's Utilities team and local Kaumatua Pae Wanakore in 2009 suggested that Iwi regret that a wastewater scheme was not installed in 2005 and would appreciate if Council would reconsider a wastewater scheme for the Marae. A scheme was considered and a project was included in the 2012 - 2022 Long Term Plan (LTP). The project was to be 100 percent externally funded.

Council has now secured funding through the Department of Internal Affairs (DIA) 'shovel ready' funding programme to reticulate the Marae and surrounding house lots (approximately 40). All approved funding must be spent and projects completed by March 2022. A draft design has been completed and a pressure sewer scheme is proposed. **Attachment 1** shows a draft layout for the scheme. The available funding will cover costs of the reticulation, including connection into Council's wastewater pipe, installation of all onsite grinder pumps, decommissioning of existing systems and connection to the household power including any necessary upgrading (the same model that was implemented at Maketu).

Council will retain ownership of the onsite grinder pumps and will be responsible for all ongoing maintenance and renewal works. This is a similar model to the Maketu and Te Puna West schemes. Each property that would like to connect to the scheme could be required to pay a connection charge and the ongoing UTR.

A meeting was held with Te Rereatukahia Marae on 21 December 2020. **Attachment 3** outlines the questions and answers provided at the meeting. The total impact for landowners, as proposed at the meeting, is outlined in the table below:

Marae	
Onsite Installation Costs	Nil, if done as part of subsidised work.
Ongoing Power Costs	Typically $75 - $150 per year for a Marae, depending on flows.
Wastewater UTR	Likely to be in the order of 5 - 6 times the residential dwelling annual charge (approximately $5,000 - $6,000 plus GST per annum. Initial actual water meter usage data indicates 5.4 household equivalents). Note that the Council policy on multiple pan charges is currently under review.
Community Capital Contribution	Nil, as the Marae is a community facility.
Residential Lots	
Onsite Installation Costs	Nil, if done as part of subsidised work.
Ongoing Power Costs	Typically $25 - $35 per year for a dwelling* * Based on 37 cents per kilowatt hour, pump runs for 20 minutes a day and minor current draw for telemetry box).
Wastewater UTR	$944.09 plus GST per year (for Katikati) for connected properties. $472.05 plus GST per year (half of UTR) for properties where a connection is available (but house not connected).
Wastewater Capital Contribution (equivalent to FINCO cost)	Katikati Wastewater Capital Contribution for a new connection is a one off cost of $6,144 + GST.

This wastewater capital contribution recognises that new property connections are consuming capacity from the Katikati wastewater pipeline reticulation and treatment plant. Properties that do not connect will not have to pay a capital contribution until they connect, but they will be charged half of the UTR per year as an availability charge as there will be a connection available. Council has the ability to vary the capital contribution.

Feedback given at the meeting on 21 December 2020 was that Iwi were very concerned about the cost of the scheme and held a general view that they do not receive a lot for the rates they already pay i.e. no kerb and channelling, no footpaths, no sealed road and general lack of maintenance from Council. Iwi have requested Council respond to a set of questions which have been discussed in more detail below:

1.1 Can the scheme be paid for over time and could that payment plan be interest free?

Council could decide that the connection charge be paid through rates over a 10 or 15-year period. This was the approach for the construction of the Te Puna West and Ongare Point Wastewater Schemes. Enabling landowners to pay the equivalent connection cost over time will require the introduction of a new targeted rate, which must be consulted on through Councils LTP or Annual Plan process. The earliest opportunity for consultation will be the 2022/23 Annual Plan, with a new targeted rate starting in the 2023 financial year. As scheme commissioning is planned for March 2022, consultation on the targeted rate will occur after or in conjunction with scheme construction. Council's standard interest rate will apply (approximately 4%). Clear messaging and communication with the community should be undertaken early, to ensure all understand how this may impact their rates.

1.2 Can Council honour a commitment given 20 years ago that Council was prepared to spend $800,000 on a scheme with the connection charge being $600 per lot?

As outlined in the background section of this report, in 2005 Council proposed reticulating the Marae and surrounding housing at a cost of $1,400 - $2,000 per annum. This cost would have paid for the reticulation, pump station and connection into Council's wastewater network. Council subsequently proposed to cover the costs for the pump station. Council has no record of a connection charge of $600 per lot.

1.3 Can Council confirm one pump station per lot is their policy?

Considered in conjunction with question 1.4 below.

1.4 Can Council confirm that there are no more connection charges for a minor dwelling?

Council's District Plan defines a minor dwelling as "a dwelling of not more than 60m² gross floor area plus any proposed attached or detached garage or carport (for the purpose of vehicle storage, general storage and laundry facilities). The garage area shall not be used for living accommodation."

A new minor dwelling is typically required to pay a half FINCO charge through the Resource Consent process.

With the construction of the Maketu wastewater scheme Council required all secondary dwellings to have their own pump installed. The number of UTRs applied is based on the total number of grinder pumps on the section. For example, one property that has two dwellings and two pumps is required to pay twice the UTR.

It is recommended that, in the case where a property has a secondary dwelling that meets the definition of a 'minor dwelling' as set out in the District Plan, one pump be installed to serve both dwellings. In this case a 1.5 times the cost of connection should apply (for the dwelling plus minor dwelling). Where there are two dwellings on the property that do not meet the definition of a minor dwelling, two pumps should be installed and twice the connection cost should apply.

1.5 Can Council confirm the costs of a second full sized dwelling on a lot with an existing dwelling?

As outlined in 1.4 it is recommended that the cost of a second full sized dwelling on a lot with an existing dwelling be equal to twice the cost of connection. This is consistent with the approach taken at Maketu.

1.6 Can Council confirm if a second pressure sewer pump station is required for a second house?
Discussed in 1.4.

1.7 Can Council consider the unfairness of typical Council policies and their effects on Iwi?
To be considered with questions below.

1.8 Can Council consider not charging 50% UTR for those that have no reason to connect now, or find a way not to penalise or impose it on them?
Council sets out in the Terms and Conditions for the Acceptance of Wastewater Drainage that:

2.5 Entitlement to Service

2.5.1 Subject to the provisions of S459(7) of the Local Government Act 1974, property owners are required to connect to a sewer within 18 months of service becoming available to a property, provided however that the owner may apply in writing to Council for exemption from such requirement when there are special circumstances. Council will consider the exemption at its sole discretion.

Council has no specific criteria to determine what special circumstances constitute, and is usually considered on a case by case basis.

Regarding the remission of the 50% UTR availability charge. Council currently has no policy in place for this.

The closest comparison as to Council's general position, is Council's water supply extension policy. This policy has been used to extend the water reticulation to Woodland Road and Black Road. The policy clearly outlines costs and requirements for landowners who do not connect to the scheme:

> *7. Costs and requirements for landowners unwilling to connect on completion of the water supply extension scheme*
>
> *7.1. Landowners who, on completion of the water supply extension have the ability to connect to the water supply extension but are unwilling to do so,* ***will be charged the applicable annual water availability charge*** *of the relevant water supply zone until such time as they connect.*

In order to waive the 50% UTR for those that have no reason to connect now, Council would be required to develop a new policy and undertake public consultation to meet the requirements of the Local Government Act 2002.

1.9 Does Council have any idea on other funding sources that could be looked at to assist Marae and the community to minimise the FINCO connection costs?
Councils 'Maori Relationships and Engagement Advisor' is investigating alternative funding options.

1.10 Could Council confirm that any possible subsidies or reduced connection charges would apply to the existing and proposed houses in this scheme?
Council can consider subsidising or reducing the connection charge. It would be a Council decision to set the dollar amount for connection to the scheme. For new schemes, this has usually been equivalent to the FINCO amount. At Te Puna West the connection charge was $13,007.41 including GST (full infrastructure plus contribution to pipeline). Landowners were able to pay this cost over a 15-year period at $1,339.28 per annum including GST. This is additional to the standard UTR.

In the case of Maketu, where there was extensive external funding (MOH, BOPRC), the property owners were not required to pay any capital connection charge or financial contribution. This was for a new standalone scheme.

The variability in funding approach is caused by the availability of external funds, the environmental benefits and the social deprivation index along with Council policy and decisions.

For the purpose of FINCOs (FINCOs are only charged on resource consents), Council's Policy allows a 50% reduction in financial contributions provided:

a) The applicant completes the Papakainga toolkit process or;

b) The application has obtained funding through the Kainga Whenua Loan Scheme or the Kainga Whenua infrastructure grant to contribute towards the costs of financial contributions.

As the properties wishing to connect are an existing Papakainga housing development, this clause would not apply. However, Council may wish to consider its intent in the setting of connection charges and FINCOS.

Council has a clear policy that provides direction in responding to a number of the queries outlined above, raised by Iwi. Council does however, have discretion over the setting of the connection charge. It is recommended that if Council requires landowners at Te Rereatukahia to pay a connection charge, Council consults on the introduction of a new targeted rate for Te Rereatukahia through the 2022/23 Annual Plan, that enables landowners to pay the connection charge over a 15-year term.

It should be noted that while BOPRC is not, at this stage, requiring Te Rereatukahia landowners to connect to a wastewater scheme, it is recommended connections be encouraged to ensure the best environmental and public health benefits for this community. It is clear following site visits from WBOPDC staff, that connection to a community scheme is encouraged due to the close proximity of houses and limited onsite land area for disposal.

It is also clear that the higher the capital connection charge the lower the number of dwellings that will connect. If only a percentage connect, then the half UTR availability charge will be an issue.

This options report considers three possible connection charges:

Option A (Lowest number of connections, least positive outcome)
Connection charge is set at $6,144+GST (FINCO equivalent) with the ability to pay over a 15-year term at 4% interest, $552.60 plus GST per annum;

Option B
Connection charge is set at $3,077+GST (half FINCO equivalent) with the ability to pay over a 15-year term at 4% interest, $276.75 plus GST per annum. This option recognises the ability for reduced FINCOS for Papakainga housing.

Option C (Highest number of connections and best overall outcome)
No connection charge to be applied to the Te Rereatukahia wastewater scheme.

SIGNIFICANCE AND ENGAGEMENT

The Local Government Act 2002 requires a formal assessment of the significance of matters and decision in this report against Council's Significance and Engagement Policy.

In making this formal assessment there is no intention to assess the importance of this item to individuals, groups, or agencies within the community and it is acknowledged that all reports have a high degree of importance to those affected by Council decisions.

The Policy requires Council and its communities to identify the degree of significance attached to particular issues, proposals, assets, decisions, and activities.

In terms of the Significance and Engagement Policy this decision is considered to be of low significance as the recommended direction to Council relates to a $123,080 decision which is defined as of low significance.

ENGAGEMENT, CONSULTATION AND COMMUNICATION

Interested/Affected Parties	Consultation		
Name of interested parties/groups	Te Rereatukahia Marae	Planned	Completed
Tangata Whenua	Meeting held 21 December 2020. Further meeting to be held in February.		

ISSUES AND OPTIONS ASSESSMENT

Recommendation 3

That it is recommended to Council that no connection charge is to be applied to the Te Rereatukahia Wastewater Scheme.

Assessment of advantages and disadvantages including impact on each of the four well-beings • **Economic** • **Social** • **Cultural** • **Environmental**	Advantages: • Will encourage landowners to connect, resulting in the best public health and environmental outcomes for this community. • Will enable the optimal use of CIP funding while available. Disadvantages: • Will result in loss of unbudgeted revenue for Katikati Wastewater Scheme.
Costs (including present and future costs, direct, indirect and contingent costs).	No funding impact for landowners. Revenue of $246,160 would not be received on the basis that the scheme would have proceeded if full FINCOs were charged, note that this is considered to be unlikely.
Other implications and any assumptions that relate to this option (Optional – if you want to include any information not covered above).	This option is consistent with the approach that was applied at Maketu.

<table>
<tr><td colspan="2">Recommendation 4
That it is recommended to Council that Council consults on the introduction of a new targeted rate for the Te Rereatukahia Wastewater Scheme through the 2022/23 Annual Plan that enables landowners to pay the equivalent of a FINCO (currently $6,144.00 +GST) over a 15-year term at an estimated annual cost of $552.60 +GST.</td></tr>
<tr><td>Assessment of advantages and disadvantages including impact on each of the four well-beings
Economic
Social
Cultural
Environmental</td><td>Advantages:
Enables Council to recover cost for loss of capacity within the network due to new connections.
Disadvantages:
It is unlikely landowners will select to connect to the scheme due to the high connection costs.
Will likely result in poor environmental and public health benefits for the community.</td></tr>
<tr><td>Costs (including present and future costs, direct, indirect and contingent costs).</td><td>Introduction of a new targeted rate at $552.60 per annum over 15-years estimated at $6,144 + GST per property.</td></tr>
<tr><td>Other implications and any assumptions that relate to this option (Optional – if you want to include any information not covered above).</td><td>This option is consistent with connection of properties to the Te Puna Wastewater scheme.</td></tr>
<tr><td colspan="2">Recommendation 5
That it is recommended to Council that Council treats Te Rereatukahia as a Papakainga development and consults on the introduction of a new targeted rate for the Te Rereatukahia Wastewater Scheme through the 2022/23 Annual Plan that enables landowners to pay the equivalent of a 50% FINCO (currently $3077 +GST) over a 15-year term at an estimated annual cost of $276.75 +GST.</td></tr>
<tr><td>Assessment of advantages and disadvantages including impact on each of the four well-beings
Economic
Social
Cultural
Environmental</td><td>Advantages:
Enables Council to recover some costs for loss of capacity within the network due to the new connections
More likely to encourage landowners to connect to the scheme resulting in better public health and environmental outcomes.
Will enable optimal use of CIP funding while available.
Disadvantages:
Results in some loss in revenue for Council
May still deter some landowners from connection.</td></tr>
<tr><td>Costs (including present and future costs, direct, indirect and contingent costs).</td><td>Introduction of a new targeted rate at $276.75 per annum over 15-years collecting about $3,077 +GST per property.

Reduced revenue of approximately $123,080 by applying the Papakainga funding principles.</td></tr>
<tr><td>Other implications and any assumptions that relate to this option (Optional – if you want to include any information not covered above).</td><td>This option is consistent with Councils charging of FINCOS for Papakainga housing.</td></tr>
</table>

STATUTORY COMPLIANCE

The recommendation(s) meet:

- Legislative requirements/legal requirements;
- Current council plans/policies/bylaws; and
- Regional/national policies/plans.

FUNDING/BUDGET IMPLICATIONS

The wastewater scheme is fully funded by the CIP Waters Funding subject to completion by March 2022.

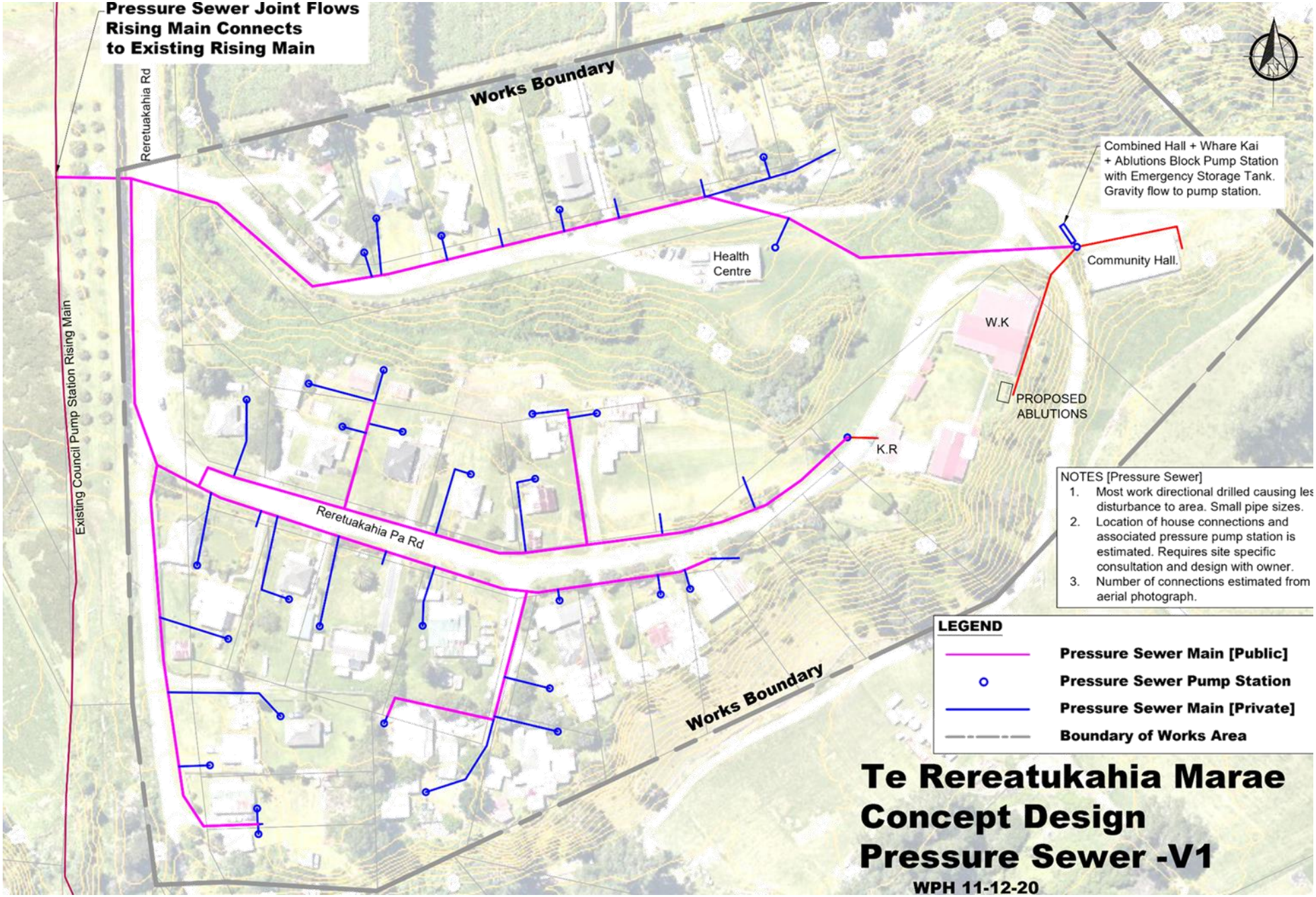
The connection of the area to the Katikati Wastewater Scheme has not been budgeted.

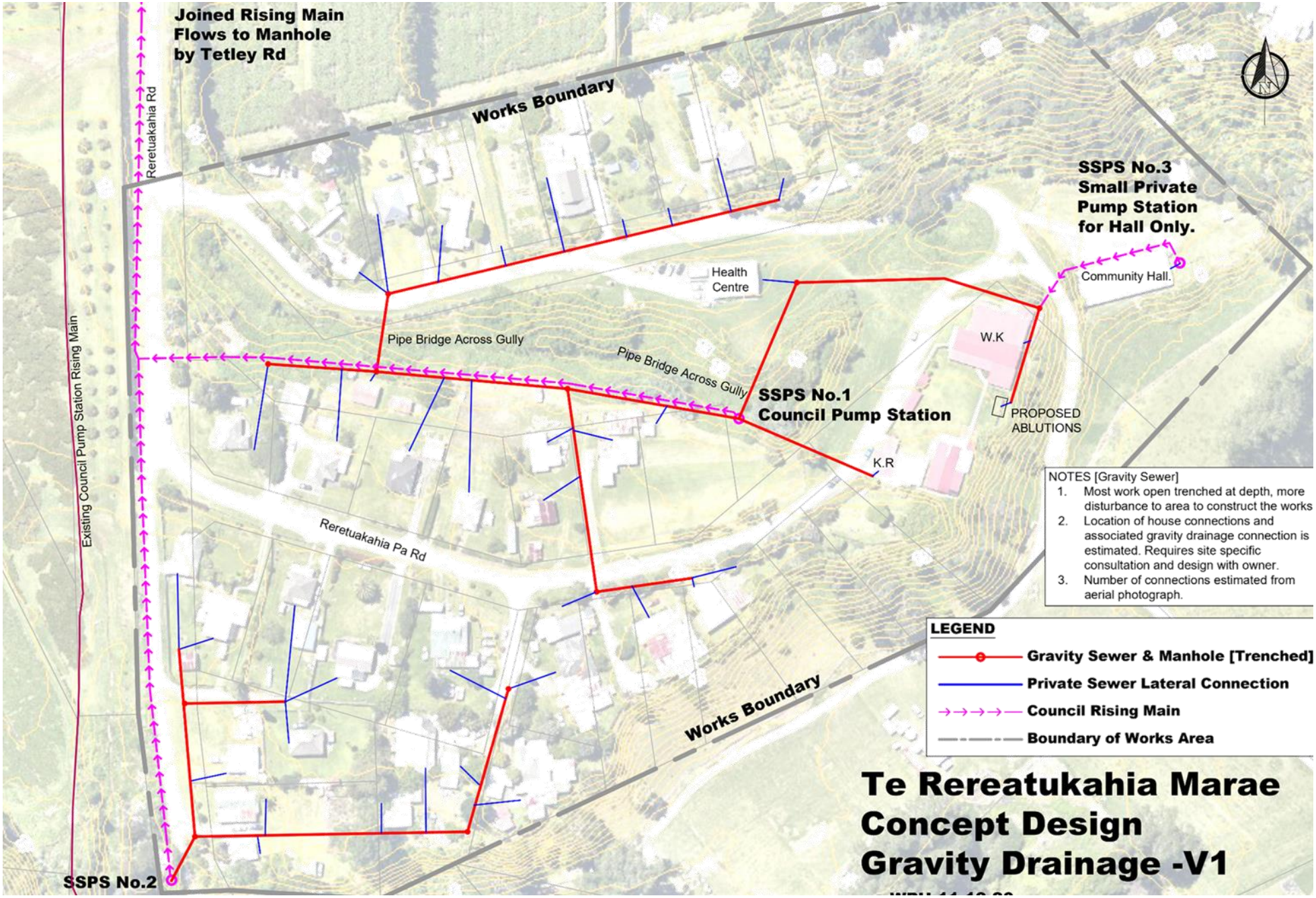
The FINCO equivalent would be an unbudgeted income to the scheme.

The UTR would generate approximated $30,000 - $40,000 per annum depending on the number of connections.

ATTACHMENTS

1. **Wastewater Rereatukahia Marae - Pressure Sewer System**
2. **Wastewater Rereatukahia Marae - Gravity and SSPS System**
3. **331402 Katikati Te Rereatukahia Marae - Handout for Village Hui**


Pressure Sewer Joint Flows
Rising Main Connects
to Existing Rising Main
Reretuakahia Rd
Works Boundary
Existing Council Pump Station Rising Main
Combined Hall + Whare Kai
+ Ablutions Block Pump Station
with Emergency Storage Tank.
Gravity flow to pump station.
Health
Centre
Community Hall.
W.K
PROPOSED
ABLUTIONS
K.R
Reretuakahia Pa Rd
Works Boundary
NOTES [Pressure Sewer]
1. Most work directional drilled causing les
disturbance to area. Small pipe sizes.
2. Location of house connections and
associated pressure pump station is
estimated. Requires site specific
consultation and design with owner.
3. Number of connections estimated from
aerial photograph.
LEGEND
Pressure Sewer Main [Public]
Pressure Sewer Pump Station
Pressure Sewer Main [Private]
Boundary of Works Area
Te Rereatukahia Marae
Concept Design
Pressure Sewer -V1
WPH 11-12-20


Joined Rising Main
Flows to Manhole
by Tetley Rd
Reretuakahia Rd
Works Boundary
SSPS No.3
Small Private
Pump Station
for Hall Only.
Health
Centre
Community Hall.
Pipe Bridge Across Gully
Pipe Bridge Across Gully
W.K
SSPS No.1
Council Pump Station
PROPOSED
ABLUTIONS
K.R
Existing Council Pump Station Rising Main
Reretuakahia Pa Rd
Works Boundary
SSPS No.2
NOTES [Gravity Sewer]
1. Most work open trenched at depth, more disturbance to area to construct the works
2. Location of house connections and associated gravity drainage connection is estimated. Requires site specific consultation and design with owner.
3. Number of connections estimated from aerial photograph.
LEGEND
Gravity Sewer & Manhole [Trenched]
Private Sewer Lateral Connection
Council Rising Main
Boundary of Works Area
Te Rereatukahia Marae
Concept Design
Gravity Drainage -V1

TE REREATUKAHIA CONCEPT WASTEWATER SCHEME

Questions and Answers

General Questions

Q. Why is a wastewater system being proposed for Te Rereatukahia and surrounding properties?

A. Bay of Plenty Regional Council (BOPRC) has identified rural areas where the cumulative effects of intensified development is evident. This includes various marae in the Tauranga Moana area.

A. Western Bay of Plenty District Council (Council) has applied for Central Government Crown Infrastructure Partner (CIP) funding to investigate and construct a wastewater connection for the marae and local houses to Councils existing wastewater infrastructure. To receive the funding, construction must be completed by February 2022.

Q. What wastewater systems have been investigated for Te Reretuakahia?

A. Council is investigating the following wastewater schemes for your Marae and surrounding properties:

1. Option 1 - Traditional gravity sewer system that would pump 480m metres to the nearest Katikati gravity wastewater network connecting to the Katikati wastewater treatment plant.
2. Option 2 - Pressure sewer grinder pump system to the nearby existing sewerage rising main on the old railway line area.
3. On-site treatment and disposal of marae flows were not investigated as the site lot is very small, is close to existing Council sewerage reticulation and the Marae sits high on steep sided banks. Additional wastewater disposal soakage could increase the risk of slope stability at the Marae. It would not cater for local residential houses.

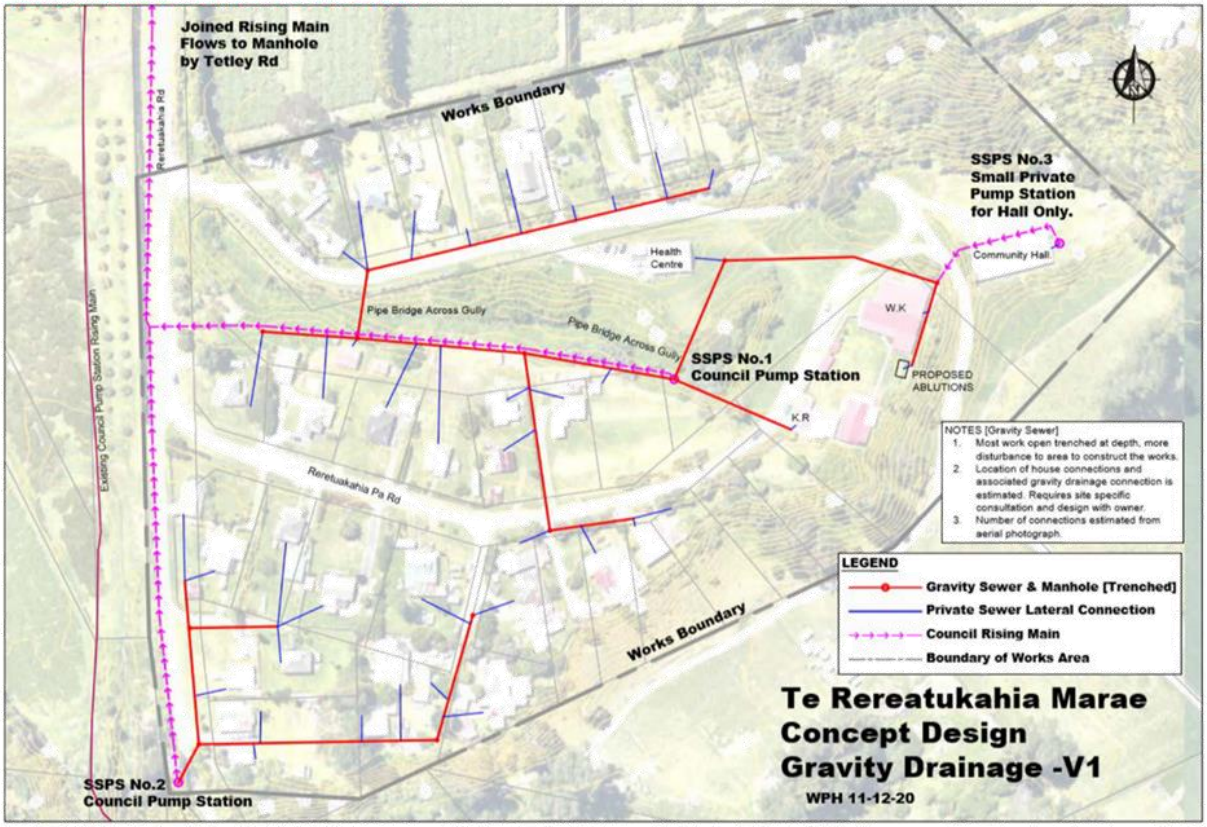
The following page shows schematics of a traditional gravity wastewater network and a pressure sewer grinder pump system. These layouts are concept only and final layouts will be discussed with the marae and landowners if they wish to proceed with a scheme. It is possible to only service the marae for wastewater if the residential community does not wish to be included in the wastewater scheme.

Q. Why is the grinder pump option preferred?

Option 2 is indicated as the most practical solution for the following reasons:

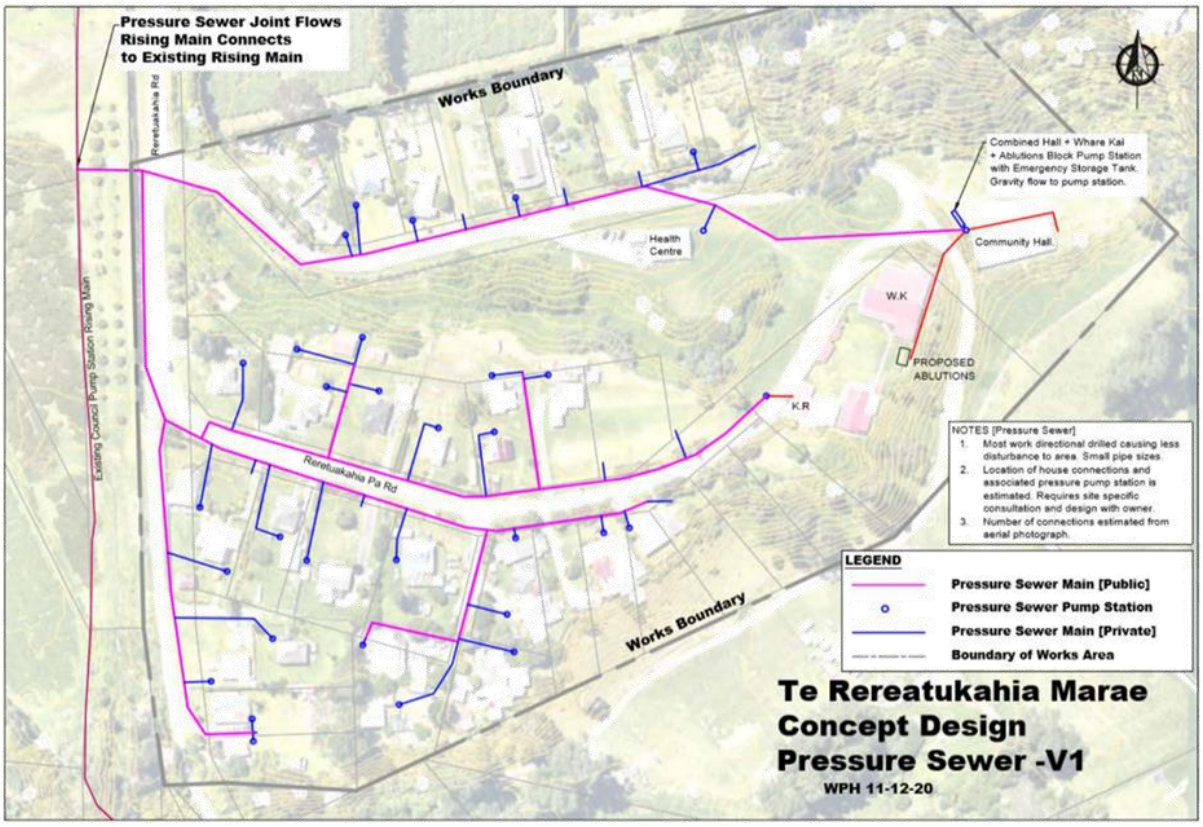
- Most cost-effective solution.
- Minimises flow discharge volumes to the Katikati wastewater network.
- The undulating nature of the Rereatukahia Pa Road and the marae site means pumping will be required. Grinder pumps are a very cost effective solution.
- The system is completely sealed. This means no stormwater can enter the network and the flows being treated by the wastewater treatment plant are reduced.
- Because the entire system is pressured, pipe sizes can be smaller and can follow the contours of the land. The pipes can be designed to avoid soft fill areas and other sloping or difficult areas in gullies that might be required to be trenched for the alternative gravity option.
- More directional underground drilling of pipes is possible, less potential for archaeological disturbance of the site and private properties.

Q. What does a traditional gravity wastewater system look like for Te Reretuakahia and Rereatukahia Pa Rd area?



Concept (indicative only)

Q. What does a pressure sewer grinder pump wastewater system look like for Te Reretuakahia and Rereatukahia Pa Rd area?



Concept (indicative only)

Q. If WBOPDC constructs a new wastewater scheme at Te Rereatukahia, will I be able to put on a second minor dwelling?

A. The rules for secondary dwellings are set out in WBOPDC's District Plan. This plan sets out the requirements for properties wanting a secondary dwelling upon them. Provided the secondary dwelling size and design are assessed by Council to meet the conditions set out for rural zone properties in the District Plan they should be allowed to proceed.

Q. Would the new scheme allow us to add a bathroom and toilet into our garage or make other modifications to our house?

A. Yes, provided alterations and existing home comply with the Building Code and District Plan you will be able to make modifications to your house.

Grinder Pumps

Q. What's the life expectancy of a grinder pump?

A. The life expectancy of the pumps inside the unit is 10-15 years (dependent on the amount of use). The life expectancy of the tank the pump sits in is about 60 years. Under the current proposed funding model, WBOPDC will replace the pumps at their life end.

Q. What happens to the existing septic tanks if a pumped scheme is constructed and I connect?

A. The tank can be cleaned out, collapsed and filled with compacted dirt. Exact details of implementation are being developed, however we would include emptying the septic tank and filling it in as part of the scheme construction.

Q. How loud are the pump stations and do they smell?

A. The pump stations are very quiet, because the pump that pumps the wastewater is about one metre below surface level. You should also never notice an odour. The pump stations are vented through the property vent drain above your roof level and through the pump station lid – this helps disperse odours inside the pump chamber. Also, due to the frequency of use, wastewater is not inside the pump chamber for long before it is pumped away.

Q. Can grinder pumps be shared between two properties?

A. No, each individual property (lot) will require its own pump.

Q. Who will be responsible for repairs to a reticulated scheme?

A. WBOPDC will be responsible for the ongoing maintenance and renewal of the scheme. This will be funded through the Wastewater Uniform Annual Charge.

Q. What happens if there are blockages in the grinder? Can wastewater come back into my house?

A. If a blockage occurs the pump will stop and an alarm will sound or warning light will flash. The property owner does need to contact WBOPDC, but the control system on each property may also be monitored. A Council contractor will then be on-site to clear any blockages in the pump. Properties will be fitted with non-return valves to ensure the wastewater does not back up into the house.

A. If ongoing blockages occurs to the pump from items not permitted to be put into the sewerage system, Council may seek repair and maintenance costs for the additional maintenance being required from the lack of care and attention to what the household is flushing down its sewerage pipes.

Q. What happens if there is a power failure?

A. All pressure sewer pump stations are sized to have a nominal storage capacity of 24 hours. During times of power failure, the user needs to restrict their water usage until power is restored.

Scheme Implementation and Extent

Q. How will you decide if a scheme will go ahead?

A. Council has secured funding for the connection of the marae and surrounding houses to Councils wastewater scheme, if the marae and community wish to go ahead with it. Council met with two of the marae committee and one kaumatua on 25 November 2020. They have asked us to prepare this information to start consultation with the wider community by having this information to give to affected residents at the December 2020 community hui.

WBOPDC will be advised by the marae committee on the outcome of this December community meeting, as to what the community interest is, and also whether the marae itself is interested in having sewer servicing (i.e. for servicing the marae, proposed ablutions block, kitchen/dining hall and community sports Hall facilities for sewerage disposal).

Council's project engineer and wastewater system designer is Wayne Henderson (wayne.henderson@westernbay.govt.nz). He can be available for any future meetings and will be the contact for landowner liaison regarding connection to any scheme.

Q. Will the installation be awarded via a tender process?

A. No, WBOPDC will manage the installation of the scheme through a negotiated quotation system with suitable contractors and suppliers. The process will ensure a competitive price is obtained.

Q. How will the system be piped and managed along shared right-of-ways (ROW), i.e. one or four pipes)?

A. One pipe will be installed down the ROW as part of the scheme reticulation. This pipe will be covered by WBOPDC costs.

Q. If a scheme is approved, when will it be constructed?

A. The construction of the scheme is currently indicated to begin in June 2021 for a 9-month period until February 2022. The long construction period allows for contractor availability, as many contractors will be busy during this time. We will work with the marae committee to try and schedule any works to be done prior to the proposed ablutions block construction timing. After the marae is serviced, private properties can be connected if the owners wish to participate, as the time-consuming part is installing the public pipe work network.

Environmental Effects

Q. Why has The Te Rereatukahia marae area been included?

Te Rereatukahia marae sits upon a small land parcel which has limited space for an on-site effluent treatment field. The marae currently discharges to an old soak hole on the site.

BOPRC is currently auditing sites with old soak holes, as they are no longer an approved form of effluent disposals for sites like marae that can have large flows generated during high visitor use days. Soak hole disposal can cause adverse environmental and health effects. Servicing the marae with a new wastewater disposal system was assessed as a high priority by BOPRC.

Te Rereatukahia marae is well used and has plans for new ablutions block. The marae will require a compliant effluent disposal system to be in place to accommodate for the additional ablution block flows.

The surrounding residential property sites vary from large to small section sizes. Some have constraints that can make them less suitable for adding further bedrooms onto the existing house or building minor dwellings on the lot. The residential lots are using traditional septic tank systems that need space for wastewater disposal upon the site. Continuing with traditional septic tanks sometimes reduces the ability to house additional people upon a lot.

Council was able to apply for CIP funding for the Rereatukahia Pa Rd area wastewater system for both the marae and surrounding community housing, as it was pragmatic to provide wastewater servicing for all lots at the same time as they are together in the one area.

If a Scheme Does Not Proceed

Q. What other viable options are there?

A. Further specialist advice would need to be sought and unique solutions designed for the marae site (whare kai and ablutions blocks in particular) to service it for advanced wastewater treatment and soakage disposal. Council will work with the marae if this option is wanted to be further investigated.

A. The residential properties would continue to use and maintain their existing wastewater septic tank and disposal soakholes/fields.

A. Currently the installation of the pressure pipeline on road reserve and pump station on the private property is paid for under the CIP subsidy scheme. The subsidy scheme installation work must be completed by March 2022 or the funding is lost.

A. Any funding not used for this Te Rereatukahia area will be transferred to other marae to help with their wastewater disposal schemes. Council has a list of reserve projects in case some projects do not proceed.

Q. What happens to properties if the majority do not want to join?

A. Property owners with non-compliant septic tank systems or effluent fields that are not of a sufficient size to dispose of effluent without creating any adverse environmental or health effects may, at some stage in the future, have to upgrade their on-site wastewater treatment system at their own expense.

A. Council would still like to connect the marae to the Katikati sewerage scheme (if that is what the marae chooses), even if the private landowners do not agree to a sewerage scheme for private properties. Installing the pressure sewer pipe work now will utilise some of the funding in this area for Te Rereatukahia Marae.

A. If only a few properties wished to join, the reminder of the unconnected properties would be charged a wastewater availability charge (half the UAC cost, see costs question below). Therefore it would be likely that the community should consider voting as a whole to either install or not install a sewerage scheme to service the residential lots.

Q. How much would it cost to upgrade my existing on-site septic tank system?

A. For the residential properties that choose to connect to the proposed sewerage scheme, the pump station and on-site works (including cleaning out and filling in the old septic tank, electrical work) are paid for from the CIP project funding, as long as the project proceeds and is approved by the community. The Wastewater Capital Contribution is not paid for, and must be paid before connection to the new wastewater system.

A. For the residential properties that do not want to connect we have not yet identified what properties have compliant septic tank and disposal field systems, so we cannot advise on any site specific individual requirements and any costs. Replacement of septic tanks can typically range from $8,000 to $12,000 for a new septic tank and drainage field, depending on site and soil conditions.

A. However, for properties that want to add additional dwellings on to their lots, if possible, may have upgrade costs likely be at least the equivalent of an Advanced Wastewater Treatment System (AWTS) (about $15,000) but may be more.

A. If the marae had suitable land space available for disposal, the cost could be in the vicinity of $120,000 to $160,000 or more for an AWTS system. An exact cost has not been ascertained, but this range is derived from review of similar marae upgrade projects as advised by a major treatment system supplier in NZ.

Funding and Scheme Cost

Q. What contribution will WBOPDC pay?

A. WBOPDC has secured funding to pay for the construction costs of the public reticulation and for the pump station and private wastewater drainage works inside the property boundary, which has been estimated to cost in the order of $1m to $1.275m.

Q. What will the property owner costs be?

The landowners will not have to pay the onsite installation costs (grinder pump, electrical, drain laying, boundary connection etc.). The estimated landowner costs (per property) are:

MARAE

Onsite Installation Costs	Nil if done as part of subsidised work.
Ongoing Power Costs	Typically $75 to $150 per year for a Marae depending on flows.
Wastewater Uniform Annual Charge	Likely to be in the order of 5 to 6 times the residential dwelling annual charge (Say $5,000 to $6,000 + GST per annum – initial actual water meter usage data indicates 5.4 Household Equivalents). Council policy on charging marae is currently under review and these costs may be reduced.
Community Capital Contribution	Nil as the marae is a community facility.

RESIDENTIAL LOTS

Onsite Installation Costs	Nil if done as part of subsidised work.
Wastewater Uniform Annual Charge	$944.09 + GST / Year (for Katikati) for connected properties. $472.05 + GST / Year (half of UAC) for properties where a connection is available (but house not connected).
Wastewater Capital Contribution	Katikati Wastewater Capital Contribution for a new connection is a one off cost of $6,114 + GST.
Ongoing Power Costs	Typically $25 to $35 per year for a dwelling**.

(** Based on 37 cents per kilowatt hour, pump runs for 20 minutes a day and minor current draw for telemetry box).

This wastewater capital contribution recognises that new property connections are consuming capacity from the Katikati wastewater pipeline reticulation and treatment plant. Properties that do no connect will not have to pay a capital contribution until they connect, but they will be charged half of the UAC per year as an availability charge as there will be a connection available.

Q. Are there any other Government contributions available to help with the Wastewater Capital Contribution?

The wider marae community may need to investigate alternative funding sources for the payment of the wastewater capital contribution for the residential lots.

Q. If a scheme goes in will Council charge a wastewater availability charge if I do not want to connect?

A. Yes, it is Council policy to charge half of the annual Wastewater Uniform Annual Charge for properties that have the ability to be connected to an available wastewater system.

Other General Questions and Information

Q. Is the pump station monitored? Why and by who?

A. WBOPDC proposes that the installed system incorporates the Iota OneBox Telemetric Control Panel. The OneBox was designed and developed in Australia. It is used in the Te Puna West pressure sewer network. The OneBox has been adopted by the WBOPDC to monitor and regulate the flows from individual pumps within the development. This will allow the council to remotely monitor flows and to optimise the wastewater network, thus reducing maintenance inspections and repair timeframes. Once operational, in the event of any pump or control panel issue, the Council's maintenance contractor will inspect and maintain the system.

OneBox Control Panel Installation Instructions

OneBox Control Panel Requirements

- Requires an **independent circuit from the main switch board**.
- A **20amp 'D' Curve** circuit breaker is to be used for a Simplex (one pump) system
- **No RCD device** to be installed.
- **240V +/- 10% to Alarm Panel (216V to 264V)**
- **A lockable isolation switch near the panel is required by CCC – supplied by Ecoflow**

Step 1: Choose an appropriate mounting location

The OneBox Panel must be mounted in an outside location and *on the outside of the house*.

The panel must be mounted onto the outside of the house and should be within 11m of the tank. If further away, then longer cables will need to be ordered and addition costs will apply.

The panel must be mounted at an appropriate height to enable the service technician easy access in the event of a service issue.

- **Minimum of 800mm** to the base of the panel from ground level.

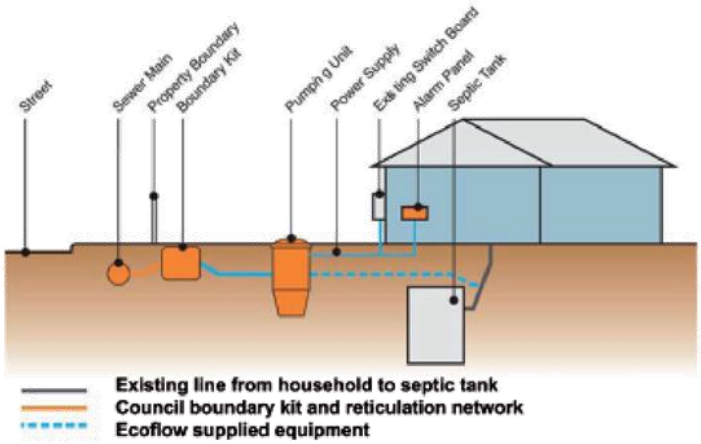
All pentrations into the panel should be one the bottom of the panel enclosure

- Any extra holes made into the panel may cause moisture to enter enclousure and will void warranty.
- The panel includes a mounting bracket and screws & fitting – which are found inside the panel.
- Use sealing conduit connecting glands for the cable penetrations at the base of the panel.
- Install a lockable external isolation switch – Supplied by Ecoflow (cost of the insolation switch is in addition to the E/One pump system price)

Rev 2 - 14.12.2020

USING THE SYSTEM

There are a few things you need to know to ensure the system runs smoothly. The system operates like a normal sewerage system. It will take waste liquids from your toilet, sink, shower, bath, diswasher and washing machine and transfer the waste to the local sewerage treatment plant.



TO AVOID BLOCKAGES AND DAMAGE TO THE PRESSURE SEWERAGE SYSTEM THE FOLLOWING ITEMS SHOULD ***NOT*** BE PLACED INTO THE SYSTEM:

- glass
- metal
- gravel or sand, including aquarium stone
- seafood shells
- socks, rags or clothes
- plastic
- diapers, sanitary napkins or tampons

- kitty litter
- explosives
- flammable materials
- lublicating oil, grease
- strong chemicals
- petrol, **diesel**
- storm water run off.

IMPORTANT POINTS TO NOTE

Please take the time to familiarise yourself with the following information:

1. The information pack on the pump unit. The most important points for you to note are:

- The unit only takes waste liquids from your toilet, sink, waste disposal unit, shower, bath, dishwasher and washing machine.
- Please refer to the list of items that you should NOT place in the system. One particular item is stormwater from your house downpipes. If stormwater enters the system it will result in higher operational costs and inevitably this will mean higher rates due to the cost of treating unwanted water.
- It is an offence under Council's Wastewater Bylaw (Section 4.3) to connect stormwater to the wastewater system.
- Note information on what to do when dealing with alarms on your unit – audible/flashing light.
- Trouble shooting.
- Working (digging) around your property in the vicinity of the pump unit, drainage pipes and boundary kit.
- Refer to Pressure Sewer Frequently Asked Questions – FAQ's

THE NEW PRESSURE SEWER SYSTEM

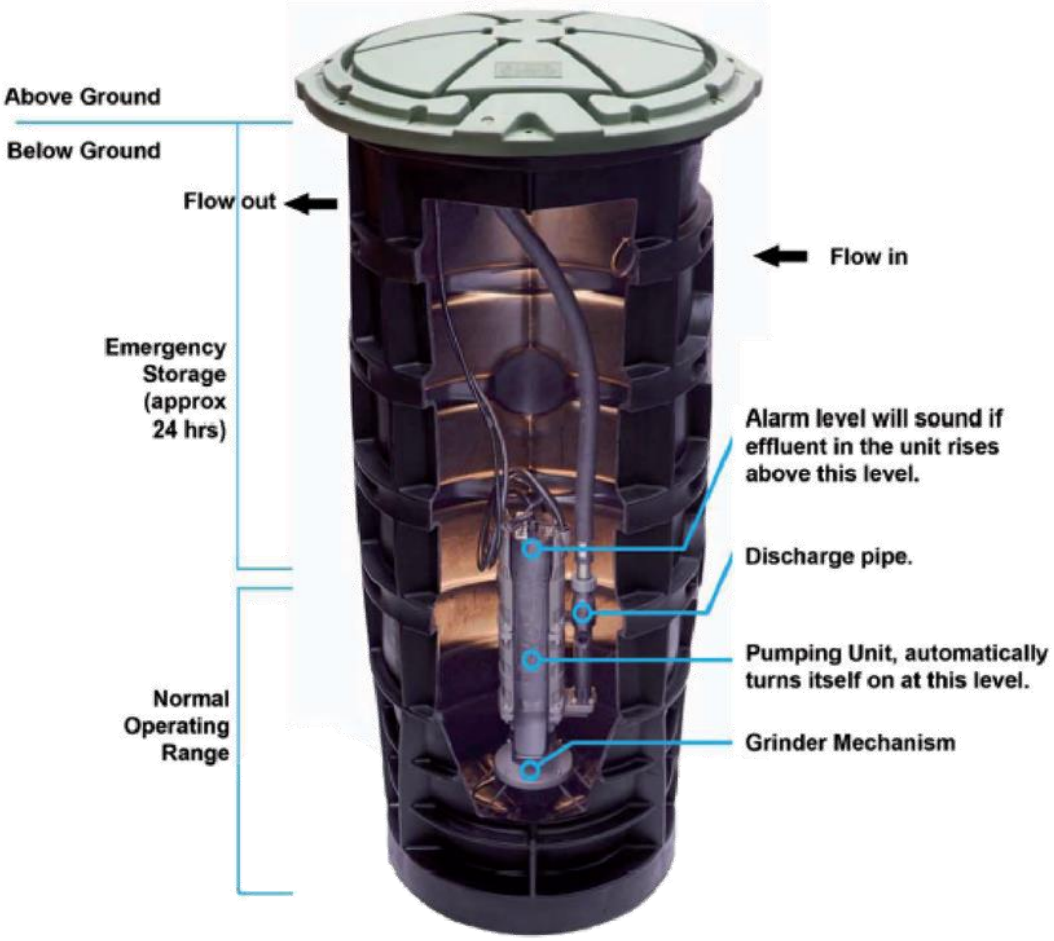
The E/One pressure sewer system is reliable and robust. There is very little you need to do and very little that can go wrong.

Here is how it works:

The new system consists of a pumping unit installed on your property which grinds up all the effluent in the tank. The pump is connected to a network of pipes from other properties in your area.

These pipes transfer effluent to a sewerage treatment plant which processes the effluent into reclaimed water suitable for reuse or disposal.

From the alarm level to ground level you have approximately 24 hours emergency storage. This means that even after the alarm sounds you can continue to use the system for around 24 hours before it will overflow (though it is encouraged to minimise water use during this time).



ON YOUR PROPERTY

Be aware...

DO NOT
Put heavy weights on the unit lid, eg. large pot plants.

The unit lid can be safely walked on but this should be avoided.

DO NOT
Touch the valves in the boundary kit.

DO NOT
turn off the power to the pumps unless in responce to a broken sewerage pipe or evaculating in an emergency.

DO NOT
Cover the pumping unit with any dirt / garden mulch etc.

ENSURE ACCESS
Is available to the pump at all times.

CONTACT THE COUNCIL
If you are making any modifications to your home which may effect the system, e.g. installing a pool or spa pool.

IF YOU ARE GOING ON HOLIDAY
Even if only for a few days, you should flush the system. This is to avoid the possibility of the system becoming smelly in your absence and causing alarm to your neighbours. To flush the system, simply run a tap in the kitchen or bathroom sink for approximately 5 minutes.

TAKE CARE IN THE GARDEN
Be careful when digging in the garden near the pump unit or it's discharge pipes. If you do accidentally break the pipeline, immediately contact Lateral Utilities 0508 528 3725 and let them know what has happened. While waiting for Lateral Utilities 0508 528 3725 to arrive, minimise the water use in the house. DO NOT ATTEMPT TO REAIR THE SYTEM YOURSELF.

PRESSURE SEWER FAQ'S

How often do the pump stations operate?
Pump operation is dependant on waste water production from the dwelling; during peak times typically the pump will start more frequently between 5 and 10 times daily in an average property with a run time of 1 to 3 minutes per cycle.

How loud are the pump stations and do they smell?
The pump stations are very quiet, the pump that pumps the wastewater is located at the bottom of the pump station (wet well) which is around 1metre below surface level, the pump stations are vented thru the property drain and thru the pump station lid which helps dissipate the build up of odours inside the pump chamber, also due to the frequency of pump run time wastewater is not held very long inside the pump well before it is pumped away. You should never notice an odour.

Where is the pump station unit located within a property? What will be visible?
Pump stations are usually installed in a location that the property owner agrees to, and along with the pump station there is a small control panel which can be mounted on a dwelling or remotely on a post. A colour maybe specified for the control panel to suit environmental features and location. The pump station protrudes from the ground by less than 100mm in height and 1 meter in diameter and has a typical green lid to suit gardens, lawn area's and native vegetation.

Do EOne pumps require much maintenance?
No. Like most other appliances or equipment in your home, no periodic maintenance is required. The grinder pump is an electro-mechanical device that will eventually require service. The unit runs until a failure occurs, at which time an alarm will sound.

What happens if there is a power failure or brown outs (insufficient power)?
All pressure sewer pump stations are size to have a storage capacity but during times of power failure the user needs to be mindful of their water usage until power is restored; protection against brown outs is an optional component of a pressure sewer system and can be easily installed to protect the pump against this type of occurrence.

Reticulation Installation (Example)

Western Bay of Plenty District Council

Questions and Answers

Prepared by Wayne Henderson BE [Civil] MIEAust

3 Waters Engineer – Western Bay of Plenty District Council

9.8 THREE MONTH REVIEW - OPENING HOURS WAIHI BEACH LIBRARY AND SERVICE CENTRE.

File Number: **A3966513**

Author: **Barbara Whitton, Customer Services and Governance Manager**

Authoriser: **Gary Allis, Deputy Chief Executive**

EXECUTIVE SUMMARY

This report provides a summary of the rationale relating to the recent changes made to the Waihi Beach Library and Service Centre opening hours that came into effect on 19 October 2020. It includes the community's response to the changes, as received by Council to date.

The report constitutes information gathered directly from the Waihi Beach Community through feedback forms, email communications, and a survey of the Waihi Beach School Parent Community, over a three-month period.

Council now needs to review the data and feedback and decide if any further variation is required.

RECOMMENDATION

1. That the Customer Services and Governance Manger's report dated 2 February 2021 titled 'Three Month Review – Opening Hours Waihi Beach Library and Service Centre' be received.
2. That the report relates to an issue that is considered to be of low significance in terms of Council's Significance and Engagement Policy.
3. That the opening hours of the Waihi Beach Library and Service Centre be extended by 3 hours to 10am to 5pm on Fridays.

   OR

4. That the opening hours of the Waihi Beach Library and Service Centre……

BACKGROUND

Staff carried out an analysis of the Community's use of the Waihi Beach Library and Service Centre in August 2020. The review showed minimal growth over the last ten years. This was possibly due to a lower level of service provided both in terms of opening hours and programme offerings (in comparison to other libraries around the district). After looking at the use patterns (of the time of day most popular), staff recommended that the Centre's opening hours be increased to enable the community to access the centre six days a week instead of two and a half. This change required reduced weekday opening hours with the Centre open between 10am and 2pm. Council passed a resolution to this effect at the Performance and Monitoring Committee Meeting held on 1 September 2020.

1. Impact of the Change – The Data

Staff have actively gathered, recorded and analysed system data and community feedback to assist Council to decide whether to continue with the new hours, revert to the original hours, or to implement a different solution. Data collected from the library's electronic security gate/door counter, the library's management system (issues and membership statistics) and direct community feedback has been used.

1.1 Door Count

Data shows that visitors to the library and service centre have increased by an average of 15% each week since the implementation of the change in opening hours. Feedback from customers indicates that they appreciate having the library open every day.

1.2 Library Book Issues

Data shows that, when compared with the same period in 2019, issues increased by an average of 3%. The assumption would be that not all increased use was for library issues, e.g. customers may have accessed the centre to utilise the technology, read the newspaper, or make a council transaction.

1.3 Library Membership

Data shows that the library has attracted an additional 45 members since the implementation of the change in opening hours, the most significant increase for the past 18 months.

1.4 Council Transactions

It should be noted that, as the percentage of council related transactions undertaken at the Waihi Beach office is very small, it is not possible to measure the change in a meaningful way.

2. Impact of the Change – Community Feedback

Staff provided an opportunity for the Community to record their feedback through a questionnaire. Of the combined responses from emails received and questionnaires returned, 21 respondents were 'very positive' about the increased days of operation; 20 respondents were 'positive', but asked that hours be extended to include at least one day open after school to enable families with children to visit. The 11 'negative' respondents all referred to lack of availability of after school hours.

In response to the feedback received and to further define community preferences, staff sent a survey (via the school) to parents asking them to rate their preferred day of the week for extended opening hours. Of the 270 families who received the survey, just 13 responded. Friday emerged as the clear preference.

3. Impact of the change – Budget Implications

The original changes made to opening hours in October 2020 were able to be accommodated within the existing budget.

Should Council decide to acknowledge Community feedback for extended opening hours to accommodate after school access, and implement at least one extension, e.g. open until 5pm one day per week, there will be a small budget implication.

4. Recommended Direction

The following table outlines the recommendation proposed in Option 3.

Day of the week	Current	Proposed	Status
Monday	10am – 2pm	10am – 2pm	No change
Tuesday	10am – 2pm	10am – 2pm	No change
Wednesday	10am – 2pm	10am – 2pm	No change
Thursday	10am – 2pm	10am – 2pm	No change

Friday	10am – 2pm	10am – 5pm	Increase of 3 hours
Saturday	9am – 12pm	9am – 12pm	No change

SIGNIFICANCE AND ENGAGEMENT

The Local Government Act 2002 requires a formal assessment of the significance of matters and decision in this report against Council's Significance and Engagement Policy in order to guide decision on approaches of engagement and degree of options analysis. In making this formal assessment, it is acknowledged that all reports have a high degree of importance to those affected by Council decisions.

In terms of the Significance and Engagement Policy, this decision is considered to be of low significance because Community interest in this decision is primarily confined to current library users and the 'parent community' concerned with after-school access. Staff have engaged informally with these frequent customers to assess their preferences. The financial implications associated with the decision are low.

ENGAGEMENT, CONSULTATION AND COMMUNICATION

Interested/Affected Parties	**Completed Engagement/Consultation/Communication**		
Name of interested parties/groups	A survey to ascertain preferred extended opening day of the week. (Parent Community from Waihi Beach Primary School).	Planned	Completed
Tangata Whenua	None at this time.		
General Public	A media release advising of the change in hours. A short questionnaire available at the Library and Service Centre.		

STATUTORY COMPLIANCE

The recommendation(s) meets:

- Legislative requirements/legal requirements;
- Current council plans/policies/bylaws; and
- Regional/national policies/plans.

FUNDING/BUDGET IMPLICATIONS

Budget Funding Information	**Relevant Detail**
$6,000 per annum	Increase in staff resources required to cover additional hours of opening, for Option 3. To be accommodated within existing budgets.

9.9 OMOKOROA TO TAURANGA CYCLE TRAIL - USER SURVEY

File Number: **A3972357**

Author: **Scott Parker, Reserves and Facilities Projects Assets Manager**

Authoriser: **Gary Allis, Deputy Chief Executive**

EXECUTIVE SUMMARY

1. During December 2020 to January 2021, users of the Omokoroa to Tauranga cycleway were surveyed by independent consultancy Xyst Ltd. The Xyst report is included as **Attachment 1** and will be linked separately through Council's website for viewing online at: https://infogram.com/western-bop-dc-trail-survey-summary-report-1h1749vv1vegq6z
2. It is proposed to repeat this survey in two years' time to assess the effects of recommended improvements.

RECOMMENDATION

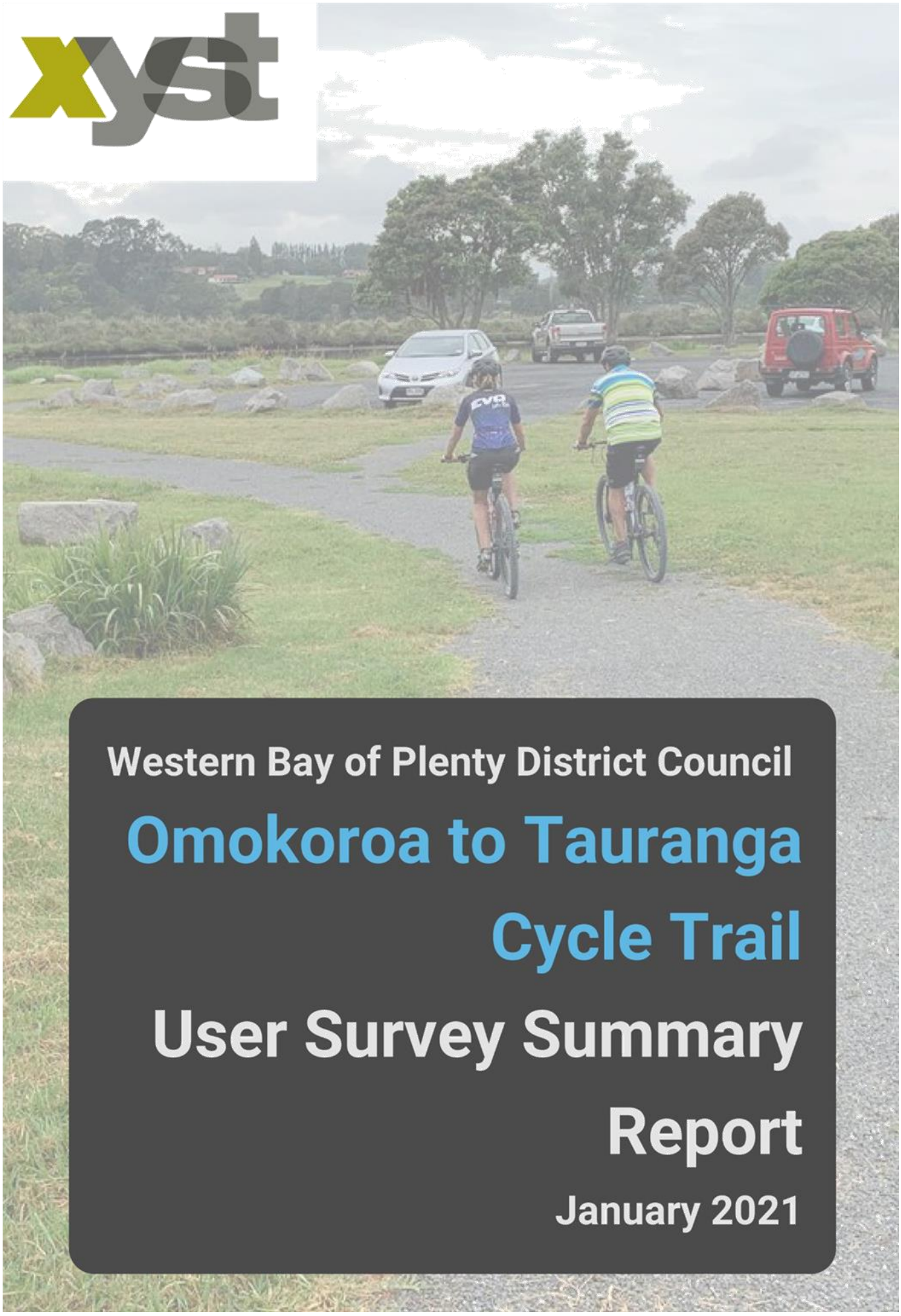
That the Reserves and Facilities Projects Assets Manager's report dated 2 February 2021 titled 'Omokoroa to Tauranga Cycleway – User Survey' be received.

BACKGROUND

3. The survey was commissioned to capture data and feedback from cycle trail users to inform future decisions and Council's corporate reporting performance measures.
4. A total of 199 surveys were undertaken from 14 December 2020 to 5 January 2021. Of these, 67 surveys were submitted online and the remaining 132 were completed as intercept surveys (face to face at various trail locations with individual users).
5. Overall satisfaction with the trail is high with 93.5% of users either satisfied or very satisfied. However, specific satisfaction scores ranged considerably.
6. The most commonly requested improvement (by 25% of all respondents) was to complete the trail from the Wairoa River Bridge to Bethlehem so that this section can be used safely.
7. Other feedback sought better trail surfaces; better trail etiquette and the slowing of speeding cyclists; more drinking water stations; better wayfinding signage; more toilets; make more of the trail off road (eg, Lochhead Road); trim overgrowing vegetation; make the narrow (foot) paths safer to use (eg, Borell & Te Puna Road).
8. Subject to LTP funding, achievable improvements for staff to focus on before the next survey (in two years time) include; better wayfinding signage; add drinking water stations; more regular vegetation trimming, trail widening and surface improvements at some locations.
9. The Wairoa Bridge to Bethlehem safety issue is clearly identified in the report. A multi-party resolution continues to be worked on behind the scenes but there is no clear timeframe on when this might conclude.

ATTACHMENTS

1. Omokoroa to Tauranga Cycleway - User Survey Summary Report - January 2021 ⇩


Western Bay of Plenty District Council
Omokoroa to Tauranga
Cycle Trail
User Survey Summary
Report
January 2021

Contents

Executive Summary

This report presents the results from a survey that was taken of users of the Omokoroa to Tauranga Cycle Trail in late December 2020.

A total of 199 surveys were undertaken from 14 December 2020 to 5 January 2021. Of these, 67 surveys were submitted by online respondents, and the remaining 132 were completed as intercept surveys.

Summary of results

- Nearly 80% of users are aged 45 and over
- More than half of respondents use the trail at least once a week.
- Around a quarter of respondents complete the whole trail in one day, with most also doing the return trip. Most trail users are doing shorter sections of the trail.
- Most trail users either drive or cycle to where they enter the trail.
- Around 59% of trail users are cyclists, and 44% of cyclists are using e-bikes.
- Around 65% of trail users live within walking or cycling distance of the trail and consider themselves local. Most of these are from Omokoroa.
- Visitors from outside the region comprise around 9% of trail users.
- Overall satisfaction with the trail is high with 93.5% of users being either satisfied or very satisfied.
- Online survey respondents were generally less satisfied with overall trail and with individual trail features than intercept survey respondents.
- Trail safety, and cleanliness and lack of litter are the most important features of the trail.
- Trail safety was identified as an issue with many respondents.
- Trail users most enjoyed the scenery and natural beauty of the trail.
- The most commonly requested improvement was to complete the trail from the Wairoa River Bridge to Bethlehem so that this section can be used safely.

Insights

Trail users are very appreciative of the opportunity to experience the estuarine environment using off-road connections and bridges between headlands. However, there are some improvements that can be made to trail safety and the overall trail experience.
E-bikes make the trail more accessible to older people, people from further afield and inexperienced or unskilled riders that may have higher requirements for safety improvements.
Local users are familiar with sections of the trail but users from outside the local area have a higher requirement for way-finding signage and other facilities.
Trail users need to be more aware of trail etiquette and respect other users.

Contents Pa

1. Introduction

The Omokoroa to Tauranga Cycle Trail is around 19km of local road and shared use off-road paths that provides an alternative route for walkers and cyclists between Omokoroa and Bethlehem. The trail starts at the Omokoroa Esplanade and at present finishes at the Wairoa River Bridge on State Highway 2. The final stages (around Lynley Park and connecting the Wairoa clip-on bridge to Carmichael Road in Bethlehem) are experiencing delays while final designs are worked out. However, the majority of the cycle trail is in use.

The Western Bay of Plenty District Council have installed track counters at various locations along the trail to identify the extent of use from walkers and cyclists. To supplement this data a survey of trail users was carried out in December 2020 using the Yardstick Trail User Survey.

2. Methodology

Yardstick Trail User Survey is a survey of trail users that can be carried out annually or as required to meet specific demands for user consultation. The survey is designed to record visitor expectations, satisfaction and behaviour.

Trail users are asked a range of questions about patterns of trail use, mode of transport, motivation for trail use, entry and exit points, home location and demographics.

Visitor expectations of levels of service are measured by asking them to rate the importance of various trail features. These results are compared with visitor satisfaction for the same features. Measuring satisfaction gives an indication of performance as measured against expectations. The difference, or gap between importance and satisfaction gives a measure of under or over performance in delivering the expected level of service.

Survey responses for importance and satisfaction are scored on a scale of 1 to 5 as shown in Table 1. Don't know or blank responses are excluded from final calculations.

Importance scale	Totally unimportant	Unimportant	Neither important nor unimportant	Important	Very important
Satisfaction scale	Very dissatisfied	Dissatisfied	Neither satisfied not dissatisfied	Satisfied	Very satisfied
	1	2	3	4	5

Table 1. Scores given to survey responses for importance and satisfaction

Contents P

A total of 199 surveys were undertaken from 14 December 2020 to 5 January 2021. Of these, 67 surveys were submitted by online respondents, and the remaining 132 were completed as intercept surveys. Intercept surveys were carried out at five locations using mobile phones to collect and submit data. All intercept surveys were carried out from 18 to 23 December 2020.

Survey location	Survey numbers
Cooney Reserve, Omokoroa	33
Huharua Reserve, Plummers Point	42
Jess Road end, Plummers Point	19
Te Puna Station Road, Wairoa River	36
Cider Factorie	2

Table 2. Intercept survey locations and numbers

For both the on-line report and this summary report, the overall satisfaction percentage is calculated from the total numbers of respondents that gave a “very satisfied” (5) and “satisfied” (4) response to the question on overall satisfaction with the trail. Overall satisfaction is therefore a count (converted to a percentage) of satisfied respondents vs dissatisfied or neither satisfied nor dissatisfied respondents.

The average (mean) satisfaction is calculated by summing the overall satisfaction scores from all respondents (including those that were not satisfied) and dividing by the number of responses to give a score between 1 and 5. This score is converted to a percentage. Average satisfaction is therefore a rating (converted to a percentage) calculated from the scores attributed to each response on the satisfaction scale.

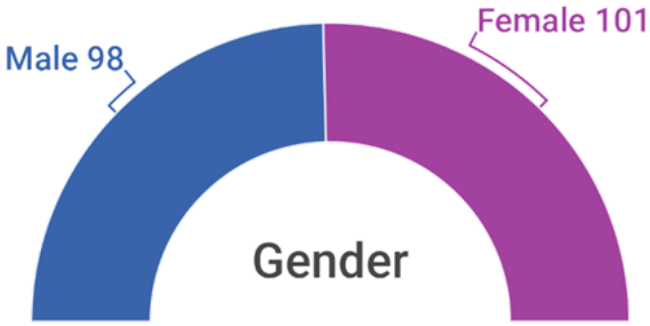
Importance and satisfaction for individual features is calculated from the survey questions for those features, and uses the mean score i.e. the sum of the values divided by the number of contributing respondents. The gap between importance and satisfaction is an indication of under or over performance. Anything less than a full one point +/- result in any chart should be read as a relatively minor indication of a level of service that is too great or too poor.

Standard deviation is used as a measure of the degree to which respondents provided similar or dissimilar responses. Standard deviation is calculated from responses to the question on overall satisfaction for the park. Where the standard deviation of respondents’ satisfaction ratings is less than one indicates that most respondents gave similar ratings that were very close to the mean (average) score. Standard deviation for the 199 surveys is 0.71.

Contents P

3. Results

Who is using the trail?



Numbers of male and female respondents were even at about 49% male and 51% female.

Chart 1. Gender of Respondents

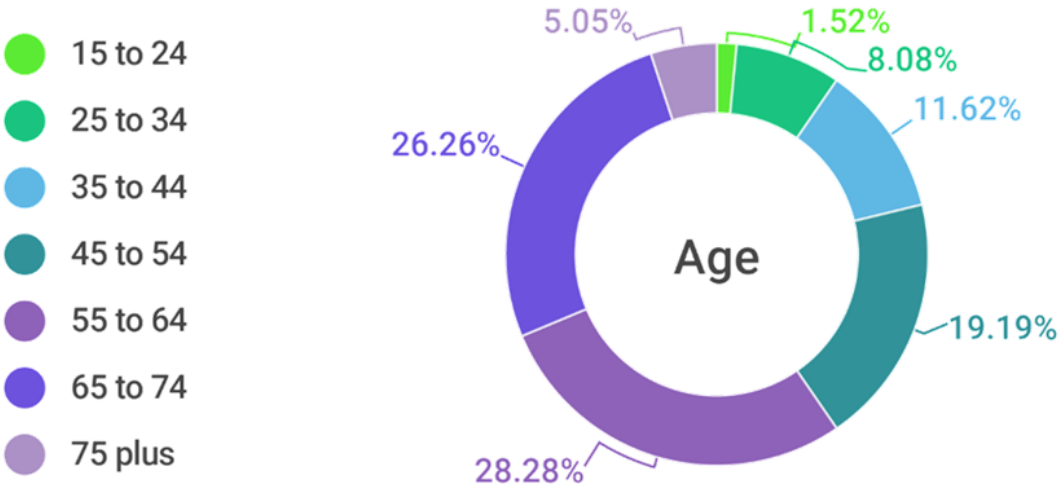


Chart 2. Age of Respondents

- The largest cohort of respondents was in the 55 to 64 age group (28%), followed by 65 to 74 (26%) and then 45 to 54 (19%).
- Around three quarters of respondents were aged 45 and over, including 5% of respondents aged 75 and over.
- The smallest cohort was in the 15 to 24 age group - only 1.5%
- Children aged under 15 are not surveyed, but very few were observed during five days of surveying.

Contents P

How and why are people using the trail?

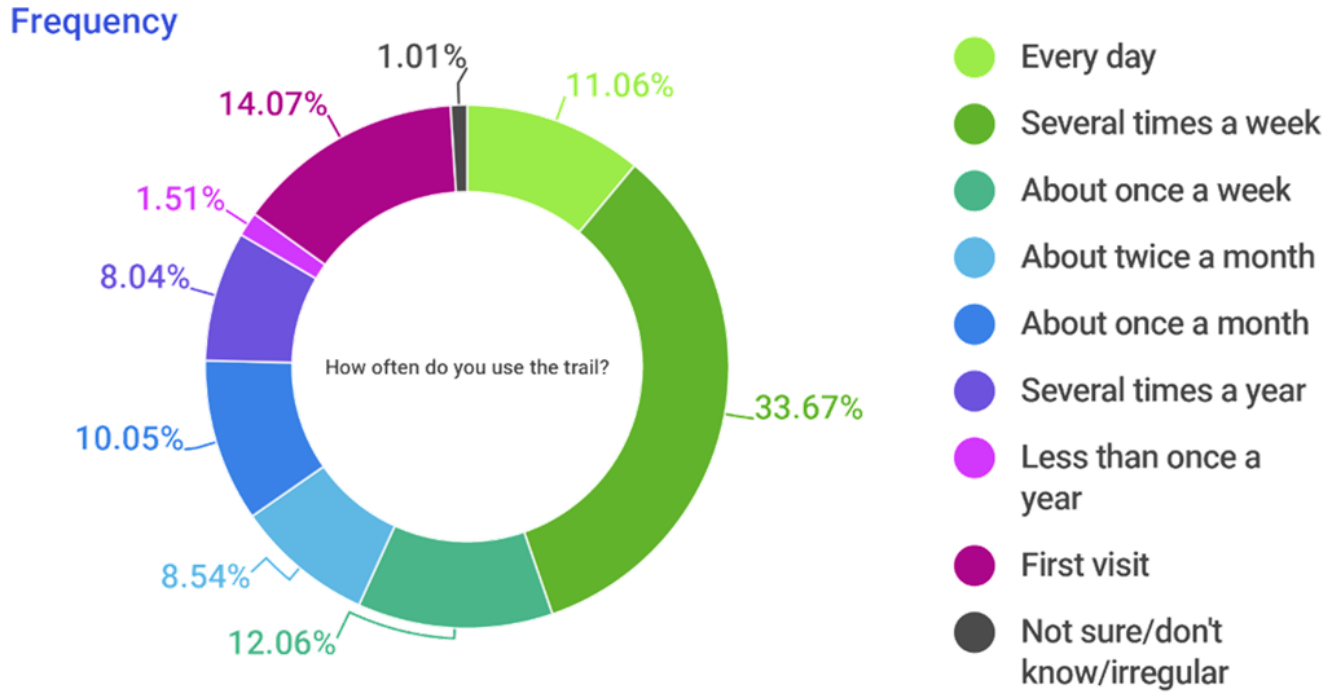


Chart 3. Frequency of use - All respondents

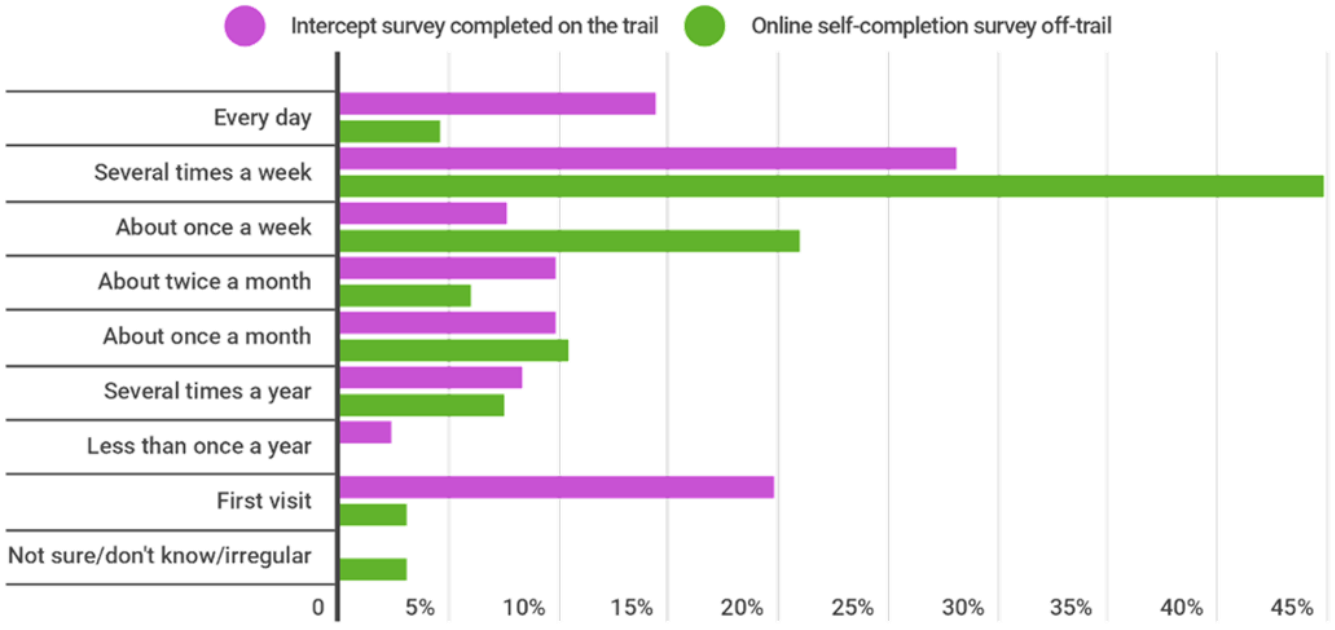


Chart 4. Frequency of use - Intercept compared with online survey respondents

- Overall, a third of respondents (33.7%) use the trail several times a week. Most of this group was made up of online self-completion respondents.
- Nearly 20% of intercept survey respondents were first time users.
- 70% of online survey respondents use the trail at least once a week compared with 50% of intercept survey respondents.

Contents Pa

Duration of visit

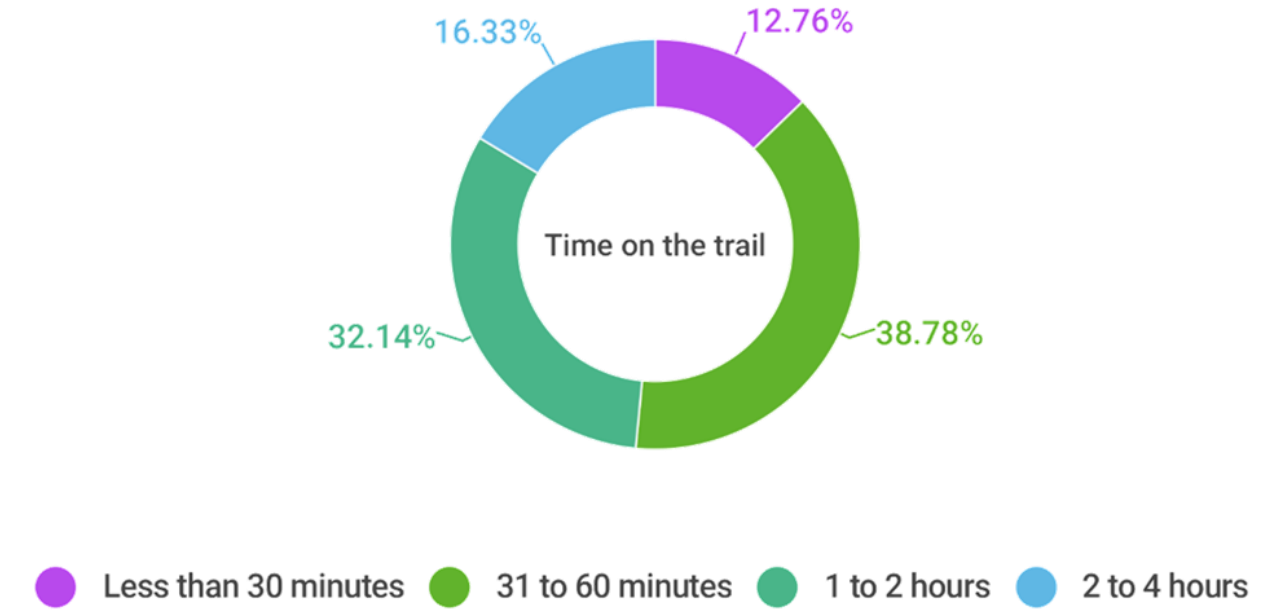


Chart 5. Duration of trail use - All respondents

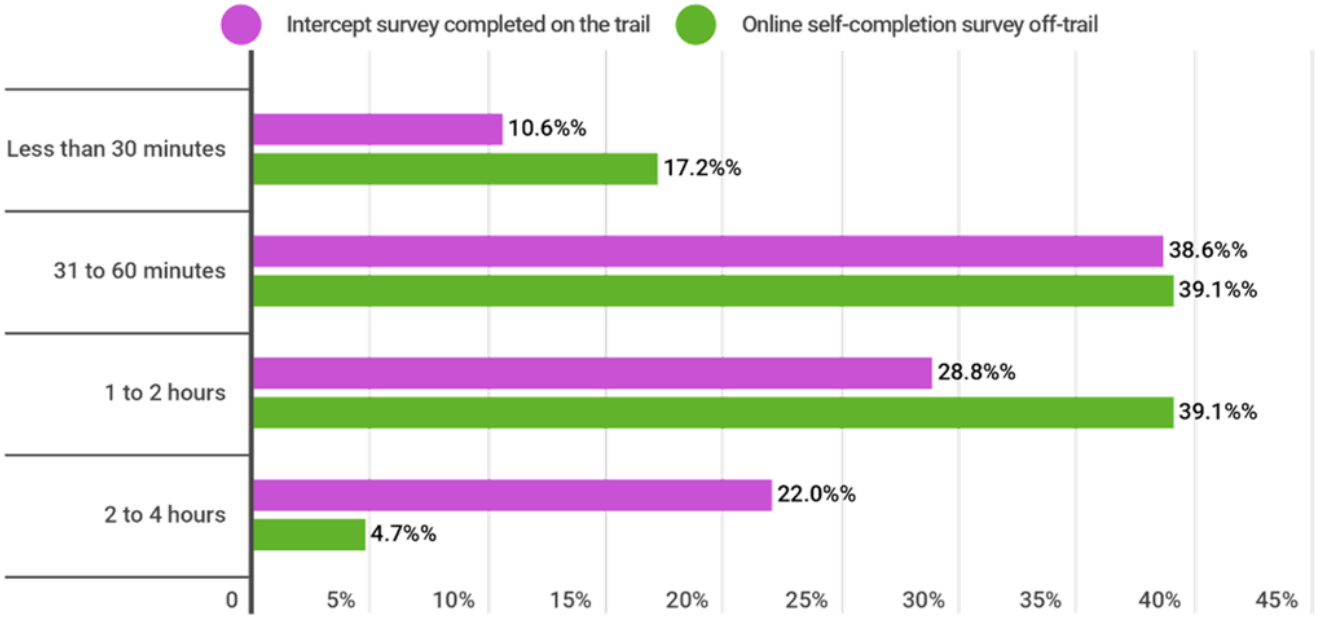
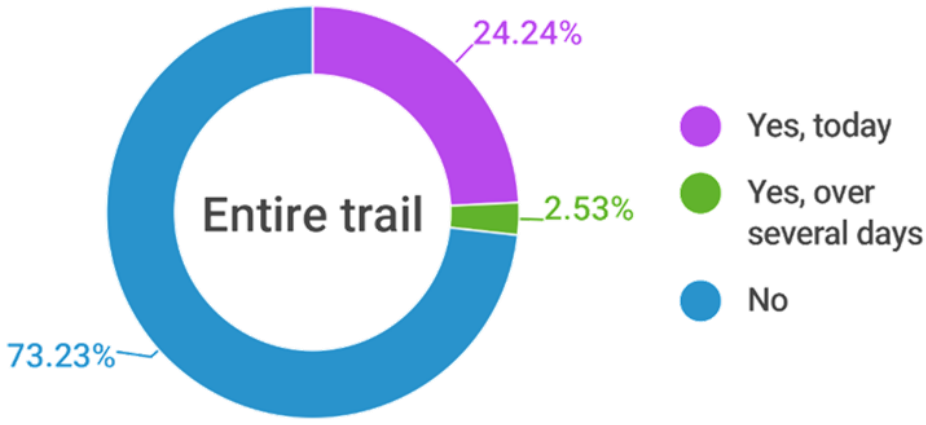


Chart 4. Duration of trail use - Intercept compared with online survey respondents

- Overall, around half of respondents were using the trail for less than an hour, and half for over an hour with around 71% using the trail for 30 minutes to 2 hours.
- Intercept survey respondents were more likely than online survey respondents to use the trail for over 2 hours, and less likely to use it for less than 30 minutes.

Contents P

Completing whole trail in same day



48 respondents (24%) were completing the entire trail in one day. Of these, 44 (22% of the total) were doing a return trip i.e. doing the entire trail in both directions.

Chart 7. Completing entire trail - All respondents

Return or one way trip

- Overall, less than 7% of respondents were doing a one way trip.
- The majority of trail use is either a return trip or a loop.

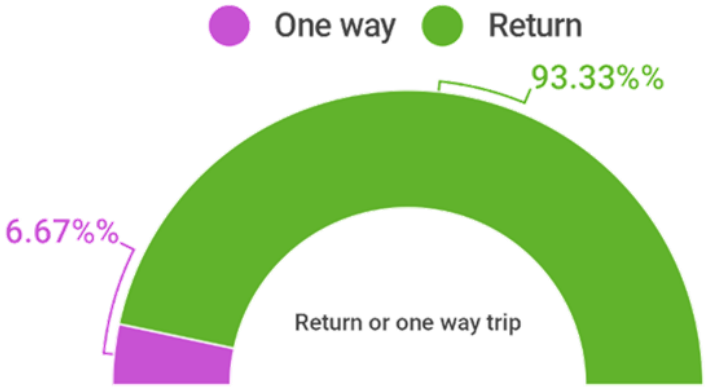
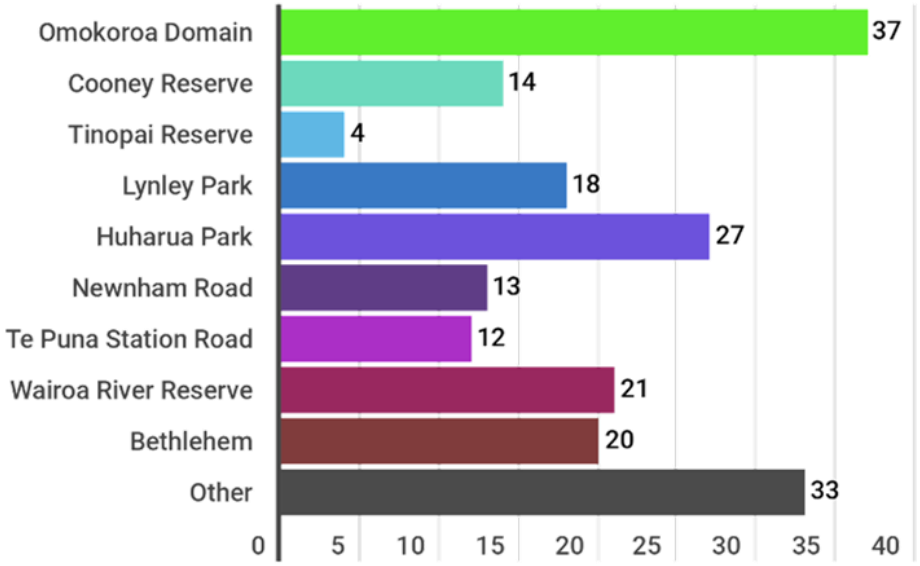


Chart 8. Return or one way trips - All respondents

Trail entry points



- The majority of respondents entered the trail at Omokoroa Domain/Esplanade o Huharua Park.
- Other locations included Te Puna, Jess Road, Plummer Point Road, Lochhead Road and Kotuku Reserve.

Chart 9. Trail entry points - All respondents

Contents P

Mode of transport to trail entry point

- The most common ways to get to the trail entry point were by car or cycle.
- Together these made up 81% of respondents, with a further 17% arriving on foot.

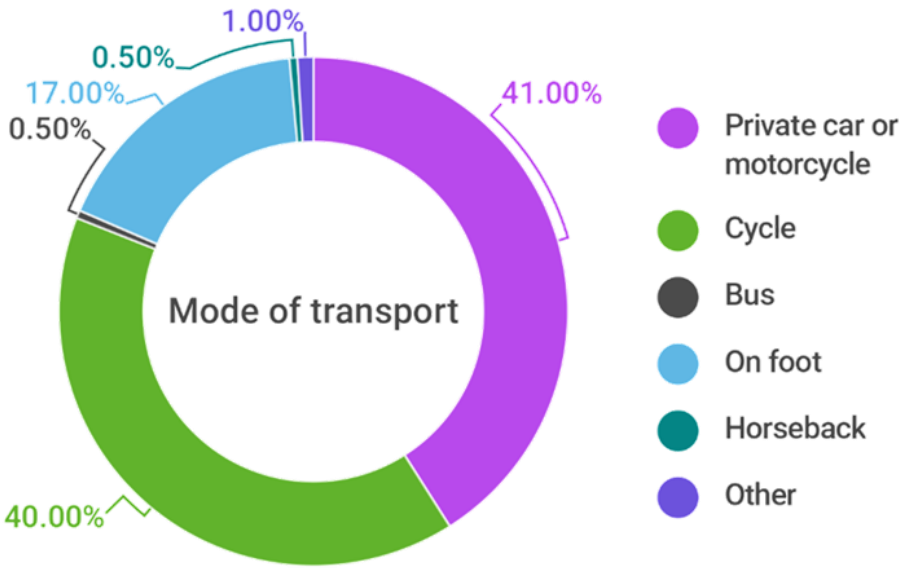


Chart 10. Mode of transport to trail - All respondents

Transport along the trail

- The majority of respondents (58.9%) cycled along the trail.
- The next largest cohort were walkers which made up 35.5% of users.
- 37 of the 116 cyclists (32%) drove to the start of the trail rather than ride.

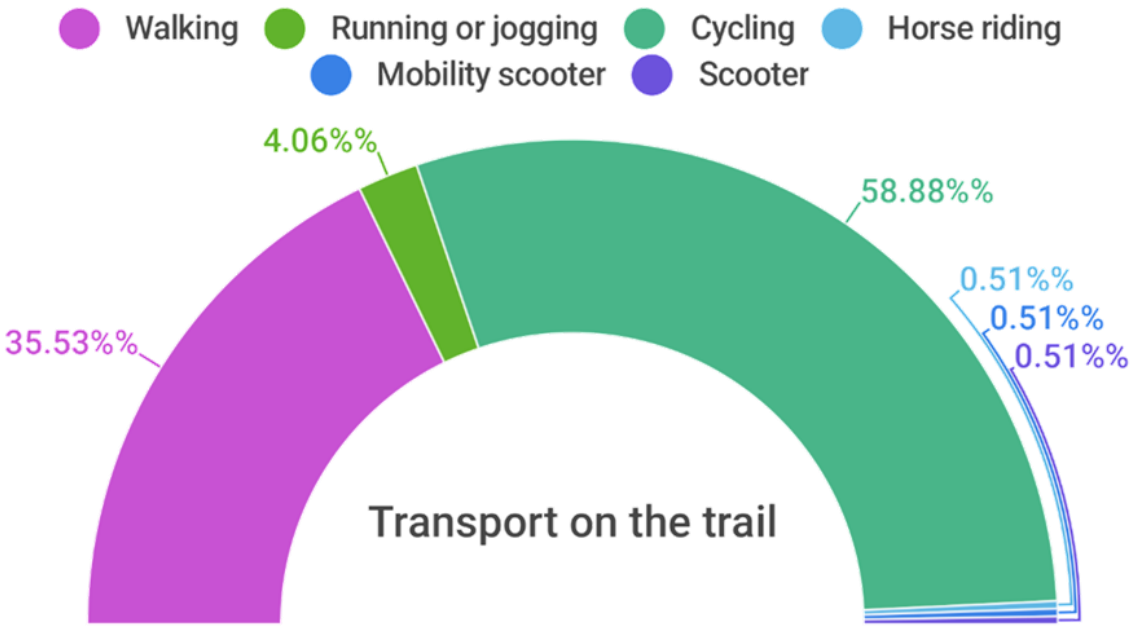


Chart 11. Mode of transport along the trail

Contents P

Use of e-bikes and hired cycles

- 51 out of 116 cyclists (44.3%) were using e-bikes.
- The largest cohort of e-bike users (20) were in the 65 to 74 age group.
- Only 2 out of 116 bikes were hired.

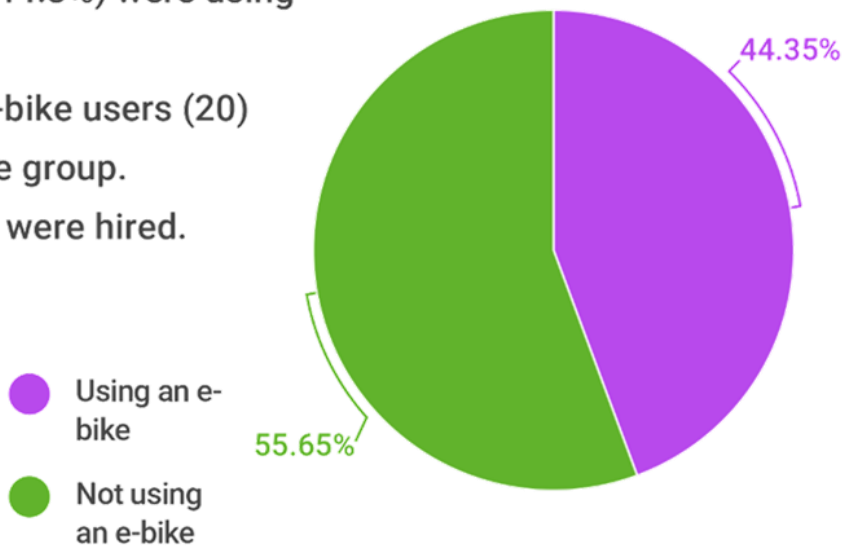


Chart 12. Use of e-bikes - All respondents

Shuttle use

- Less than 10% of respondents would be likely or very likely to use a shuttle if it was available to return them to their start point.
- Most respondents felt that the trail was too short to need a shuttle and they were able to tailor the trip length to suit their ability and fitness.

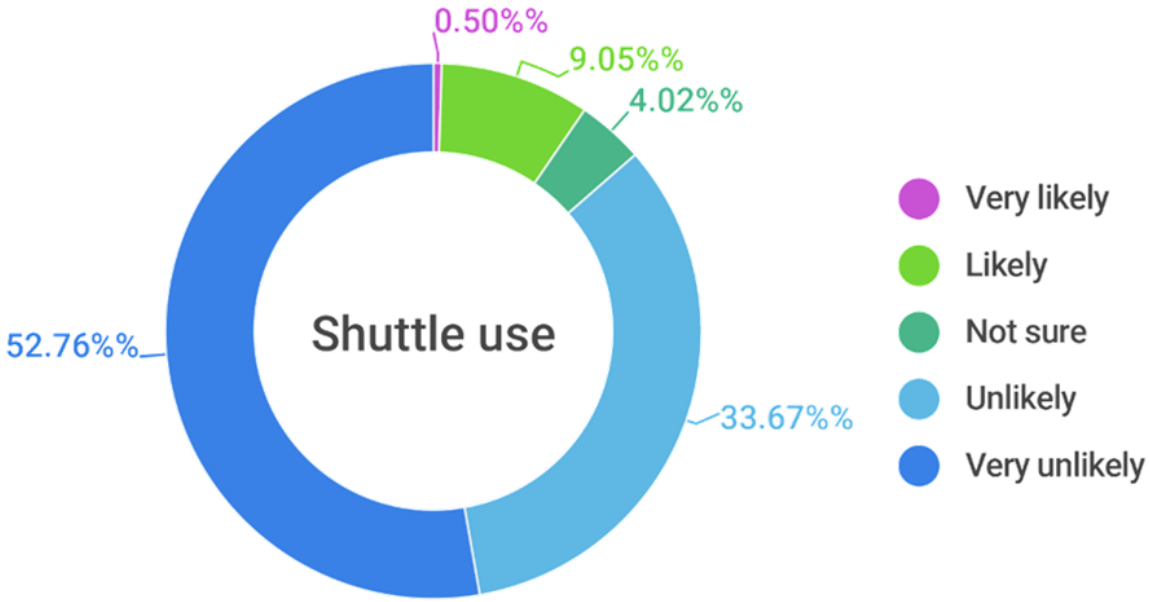


Chart 13. Likely use of a shuttle to return to start point

Contents Pa

Respondents' reasons to use trail

Respondents were asked to identify their reasons for using the trail. They were allowed to choose as many reasons as were relevant.

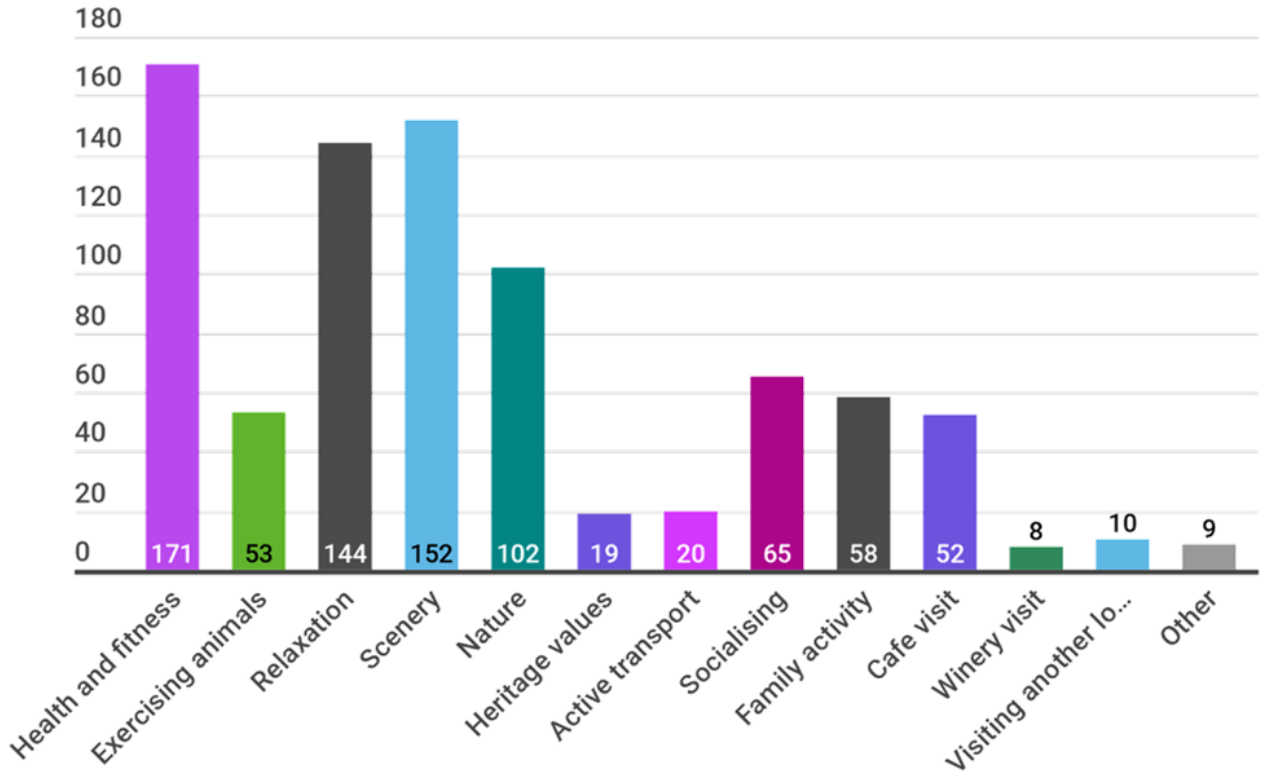


Chart 14. Reasons for using trail - All respondents

- The three most common reasons given for using the trail were for health and fitness (171), enjoyment of the scenery (152) and relaxation and mental well-being (144).

Economic benefit

- 131 of the 199 respondents identified that they did not intend to spend any money while using the trail.
- Other users reported a daily spend of between $1 and $50 with a median of $10
- The mean daily spend per person from visitors to the region was $7.35.
- The mean daily spend per person from all users was $5.96.
- One online respondent recorded a daily spend of $1,100 per person. This is inconsistent with other responses and has been excluded from analysis.

Contents P

Where are trail users from?

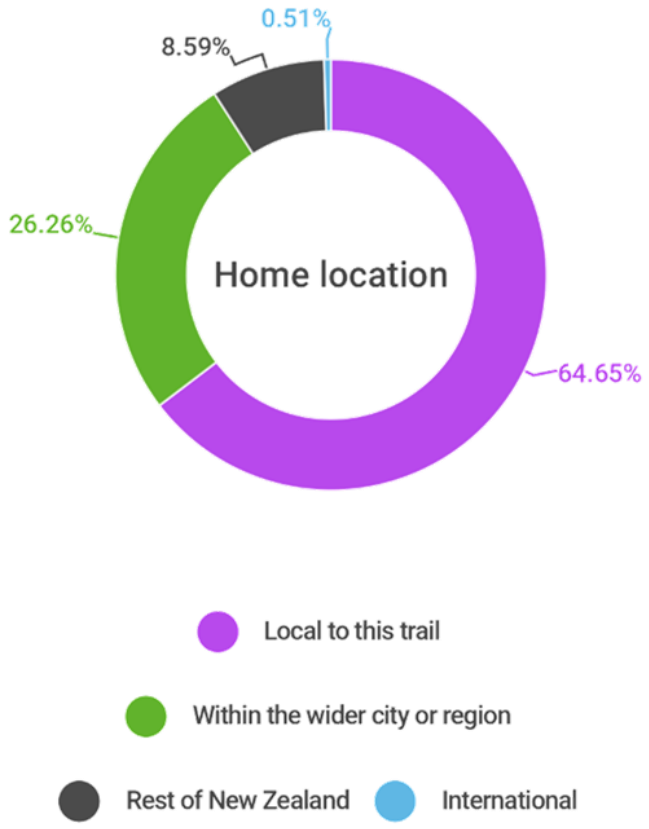


Chart 15. Home location - All respondents

- 128 respondents (64.6%) live within walking or cycling distance of the trail and consider themselves local users.
- The next largest cohort are residents of the Western Bay of Plenty or Tauranga district/city which make up a further 26.3% of respondents.
- Visitors to the region make up just over 9% of the total (18 respondents). None were visiting the region specifically to complete the cycle trail - most were visiting family for Christmas.

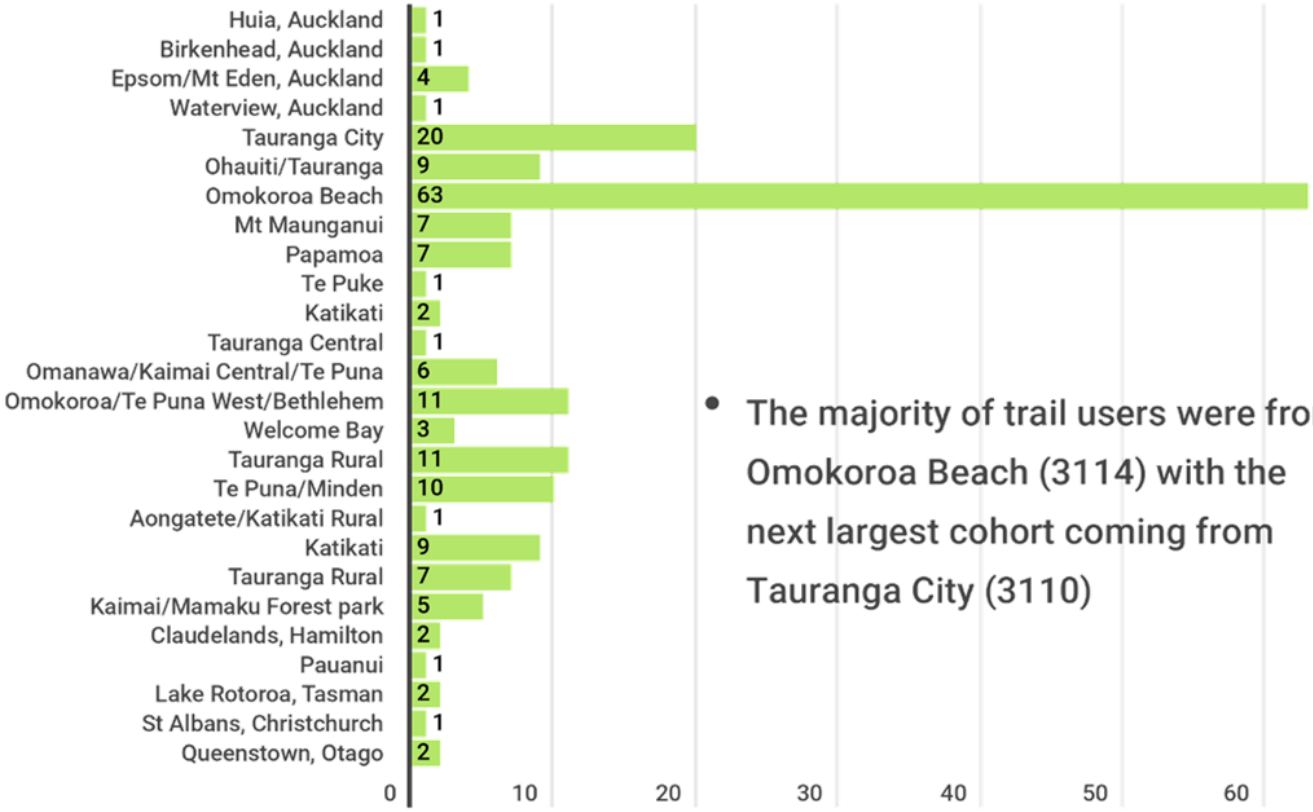


Chart 16. Home location by post code - All respondents

- The majority of trail users were from Omokoroa Beach (3114) with the next largest cohort coming from Tauranga City (3110)

Contents Pa

What are trail users saying?

The overall satisfaction of respondents was measured by asking them to rate their overall satisfaction with the park on a scale of totally dissatisfied to very satisfied. From these scores two measures are calculated, mean satisfaction (average) and overall satisfaction. Chart 1 shows a comparison of mean and overall satisfaction for total results (199 surveys), online results (67 surveys) and each separate survey location. Results for the Cider Factorie aren't included as a separate location as there were only 2 surveys taken.

Overall Satisfaction

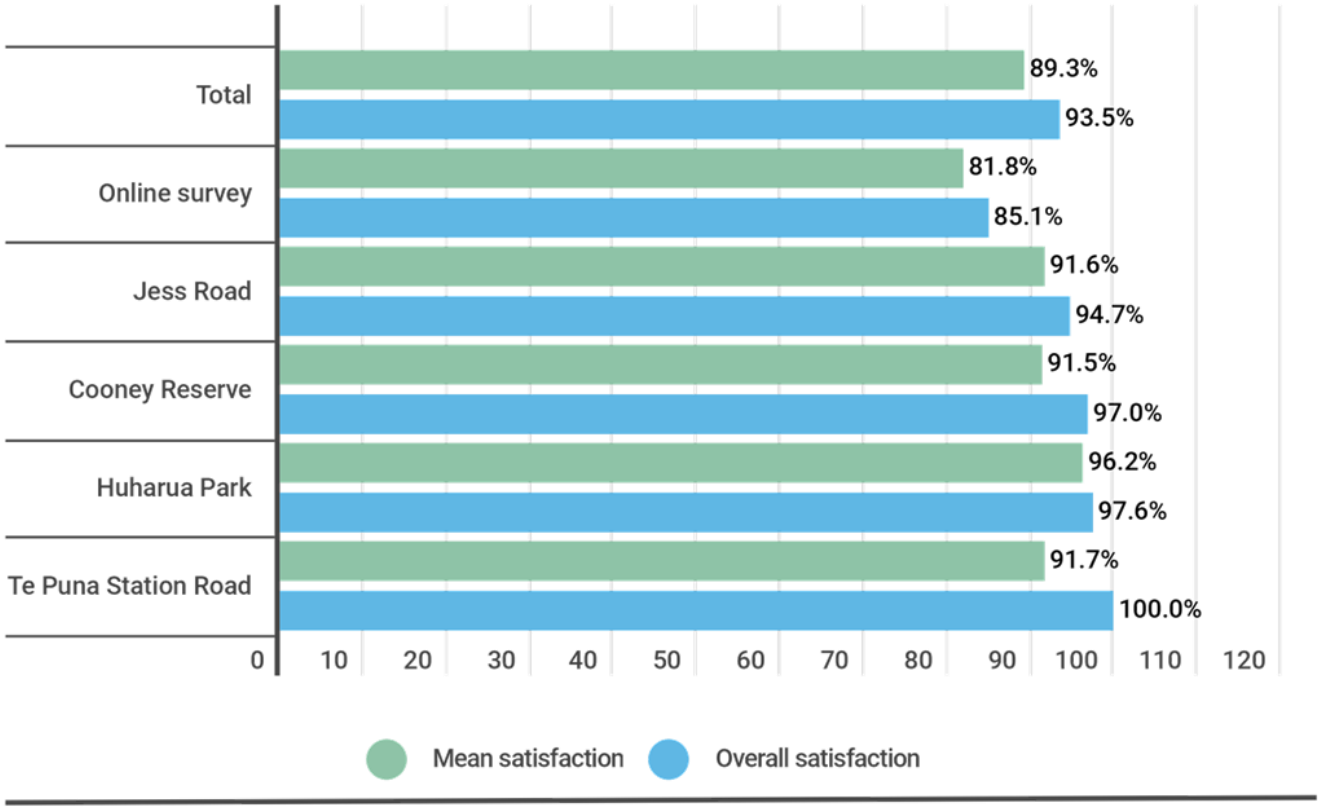
Overall satisfaction is a measure of the percentage of respondents that were either satisfied or very satisfied with the trail overall. Chart 17 shows that overall satisfaction ranges from 85.1% to 100%, with the lowest overall satisfaction being from online respondents.

Mean Satisfaction

The average or mean satisfaction of respondents is calculated by adding the total of all scores (from 1 to 5) and dividing by the total number of respondents. Chart 17 shows that mean satisfaction varies from 81.8% for online surveys to 96.2% for Huharua Park respondents.

In general, satisfaction is high, with intercept survey respondents being generally more satisfied than online survey respondents.

Chart 17. Comparison of mean and overall satisfaction



Contents Pa

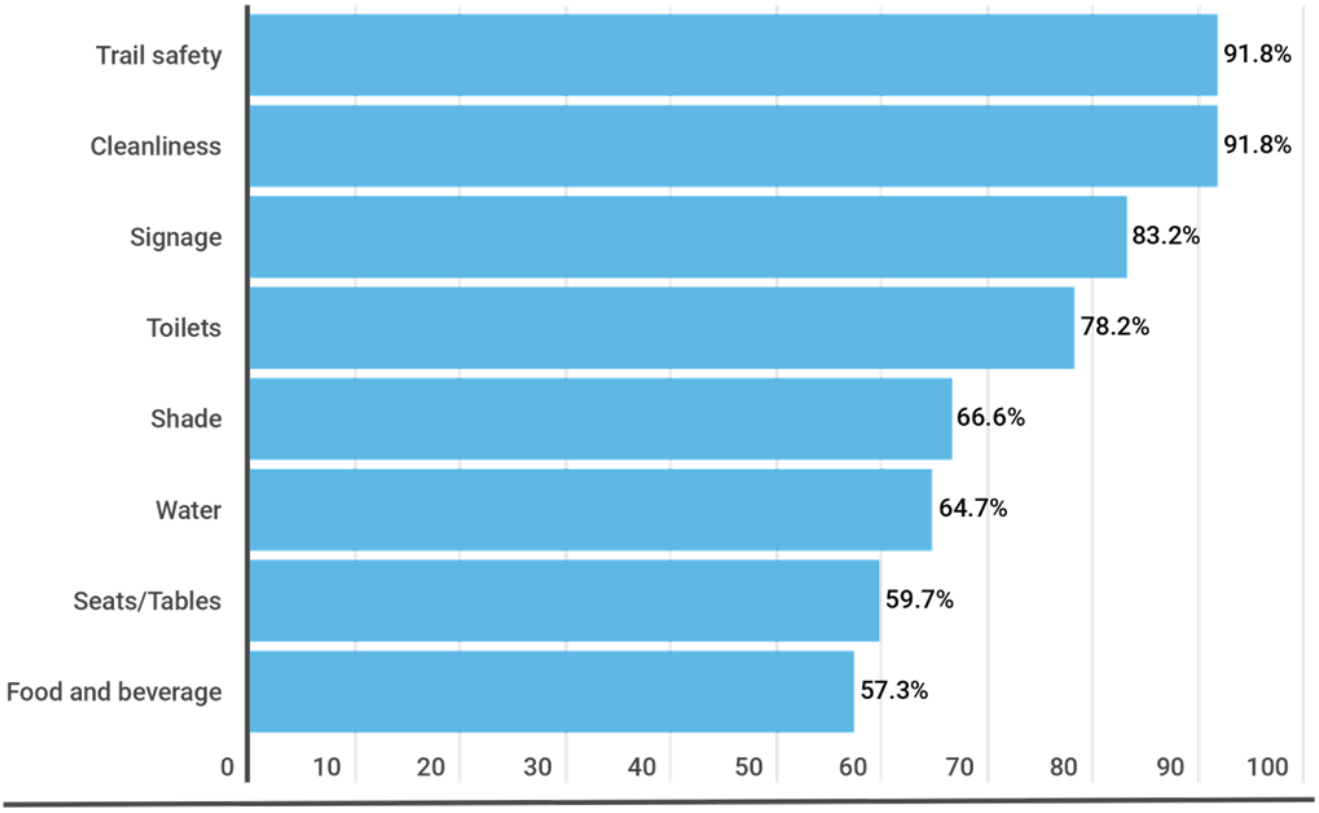
Trail Feature Importance

Respondents were asked to rate the importance of trail features on the 1 to 5 scale from totally unimportant to very important. This gives a measure of expected level of service for each feature. The features that respondents were asked to rate are:

- Toilets
- Trail signage
- Seats and tables
- Drinking fountains or bottle fillers
- Shade
- Cleanliness and lack of litter
- Food and beverage options
- Trail safety (personal safety while using the trail)

The mean importance for each feature is expressed in Chart 18 as a percentage of the maximum possible score of 5. Personal safety and trail cleanliness are the most important followed by signage and toilets. Trail users want the trail to be safe to use, free of litter, with adequate signage so that they can find their way around and so that users are aware of behavioural expectations. Furniture and food and beverage options were less important to most trail users.

Chart 18. Relative importance of trail features



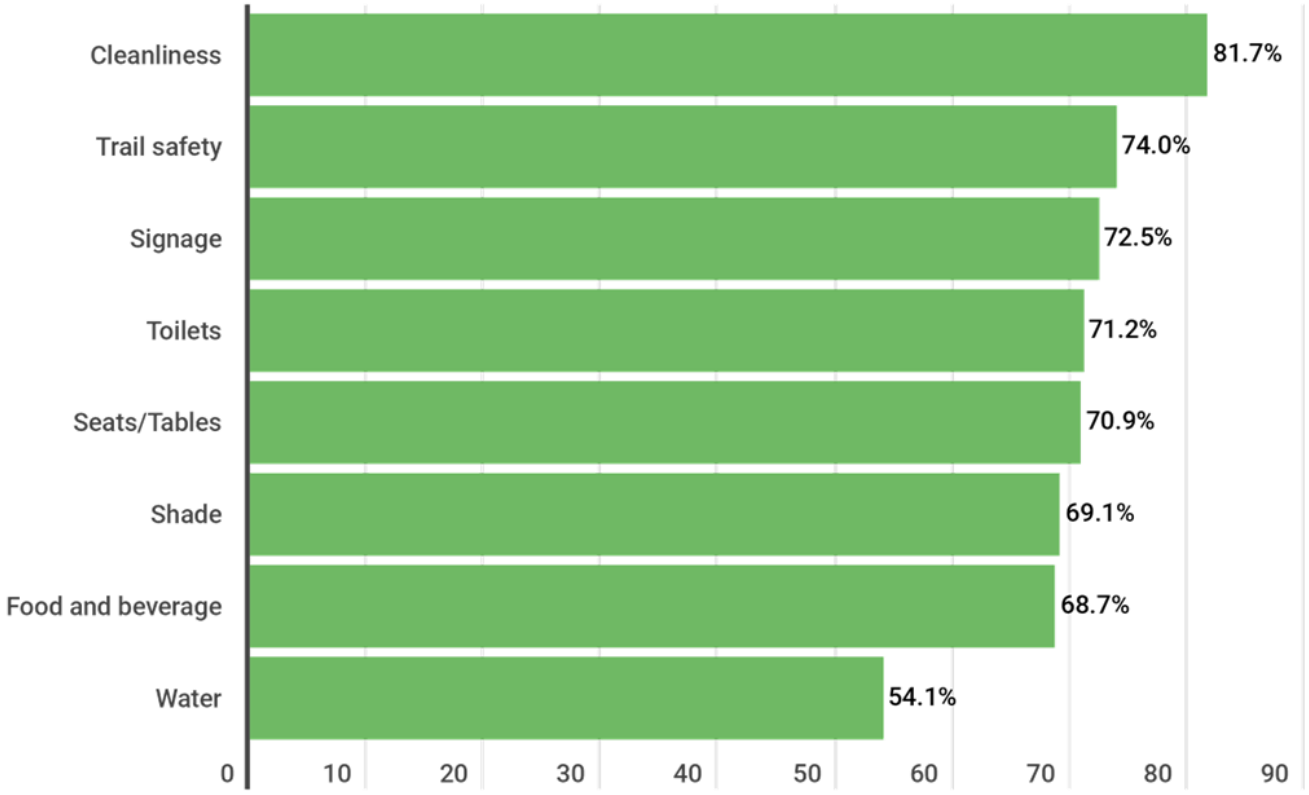
Contents Pa

Trail Feature Satisfaction

Respondents were also asked to rate their satisfaction with the same trail features from very dissatisfied to very satisfied. This gives a measure of user experience in terms of whether or not expectations were met.

The mean satisfaction with each feature is expressed in Chart 19 as a percentage of the maximum possible score of 5. The highest satisfaction is with trail cleanliness, and the lowest is with availability of drinking water. The other features all score very similarly.

Chart 19. Relative satisfaction with trail features



Contents Pa

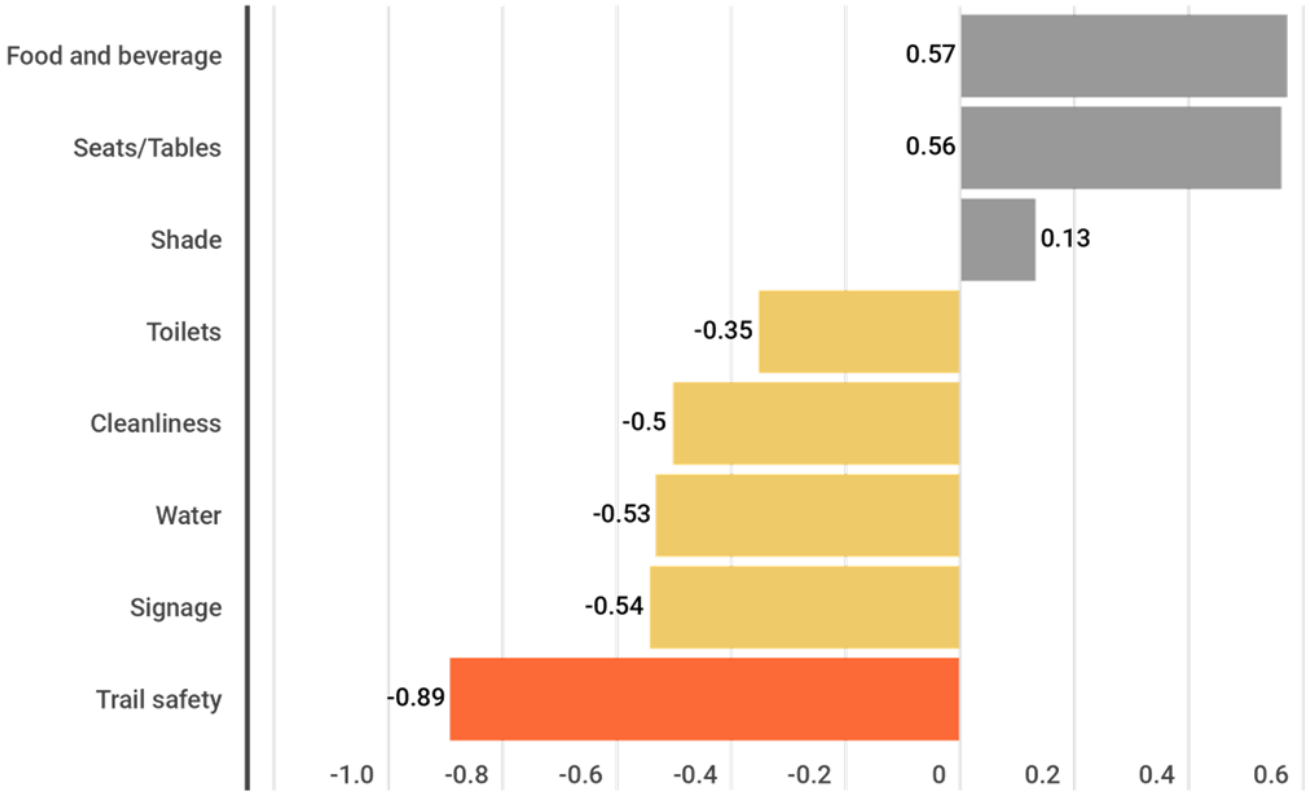
Service Gap Analysis

The service gap is calculated by subtracting the importance score from the satisfaction score (using the 1 to 5 score) i.e. experience minus expectations. Where respondents have scored satisfaction lower than importance, this indicates that their experience did not meet their expectations for the feature. This is represented by a negative service gap.

On the other hand, if satisfaction scores higher than performance, this results in a positive service gap, indicating a level of over-performance, or a higher level of service being experienced than expected.

Anything less than a full half point (+/-0.5) result in any chart should be read as a relatively minor indication of a level of service that is too great/poor. Anything between +/-0.5 – +/-1.0 should be reviewed and any gap over +/-1.0 requires further examination on why there is a major gap between respondents' expectations and experience.

Chart 20. Service level gap by trail feature



Food and beverage availability, furniture and shade all have a positive service gap indicating that there is no unmet need for these features. There is a small and insignificant gap for toilets, trail cleanliness, drinking water and trail signage. The most significant gap is for trail safety.

Contents Pa

Location specific results

Te Puna Station Road

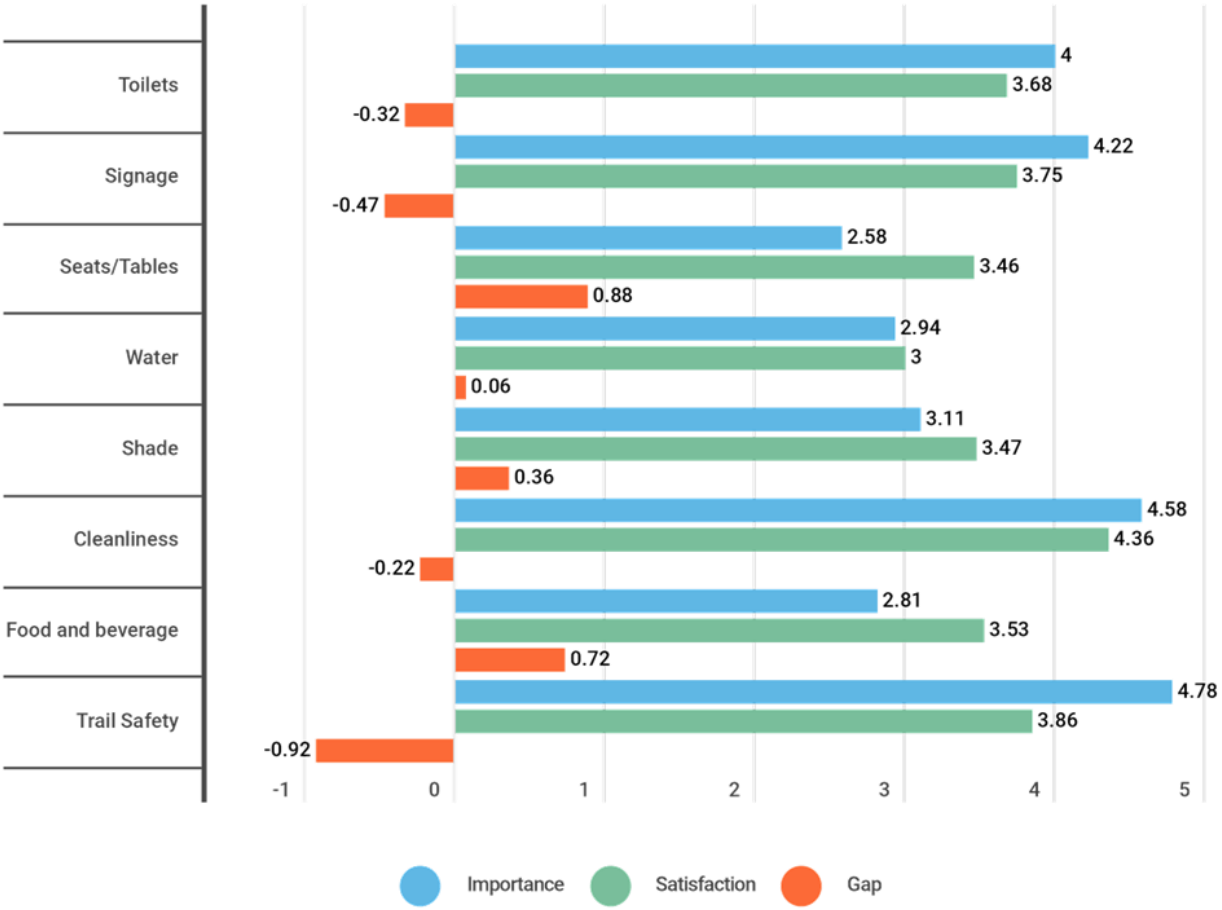


Chart 21. Te Puna Station Road results for features

The 36 respondents surveyed at the Te Puna Station Road location were more than satisfied with food and beverage availability, furniture, drinking water and shade as these features all have a positive service gap indicating that there is no unmet need identified. There are small and insignificant gaps for toilets, trail cleanliness, and trail signage. The most significant gap is for trail safety.

Intercept surveys were carried out on Sunday 20 December from 8.30am to 1pm and Wednesday 23 December from 8am to 12.15pm.

Contents Pa

Huharua Park

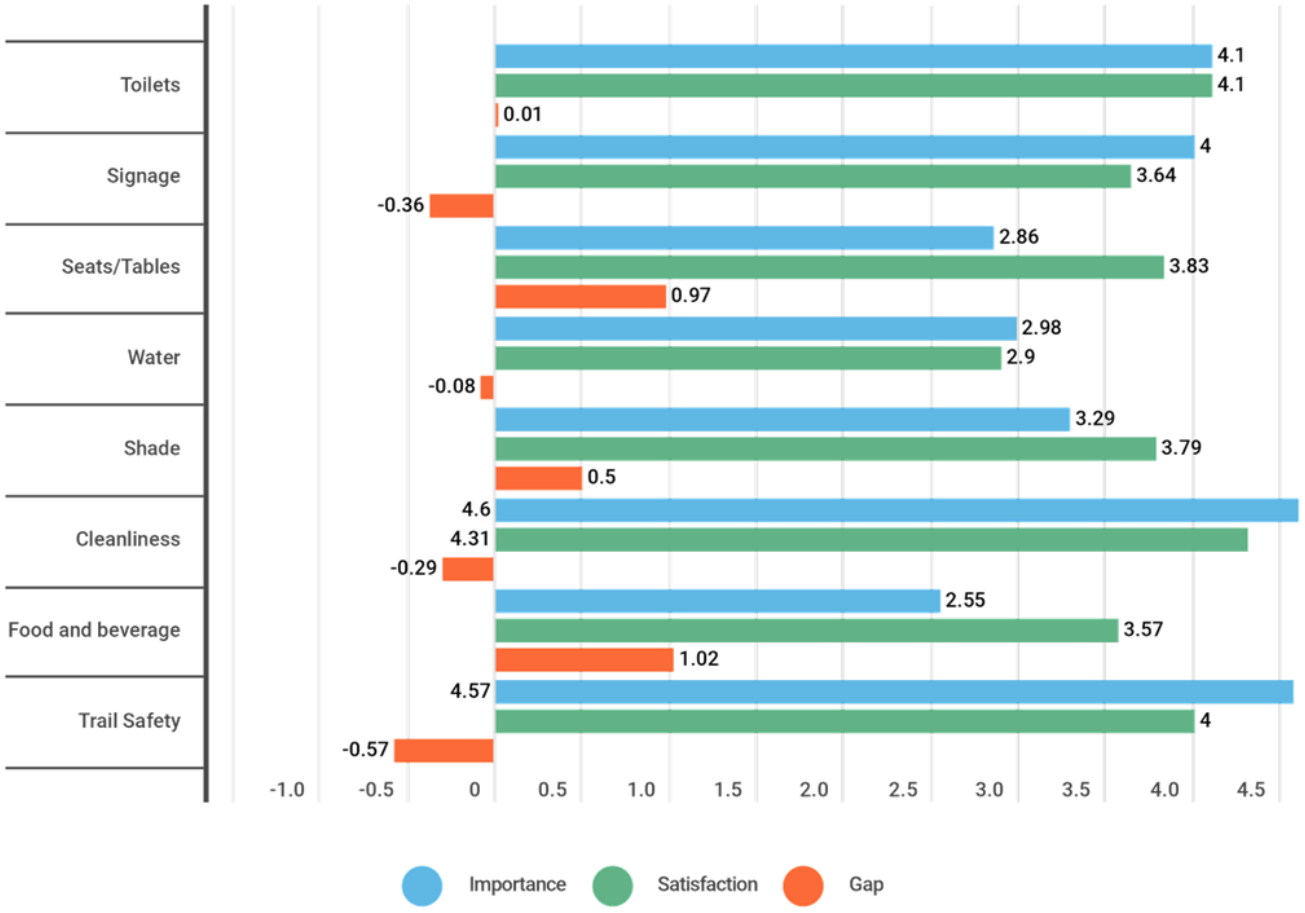


Chart 22. Huharua Park results for features

The 42 respondents surveyed at the Huharua Park location were more than satisfied with food and beverage availability, furniture, toilets and shade as these features all have a positive service gap indicating that there is no unmet need identified. There are small and insignificant gaps for drinking water, trail cleanliness, trail signage and trail safety.

Intercept surveys were carried out on Friday 18 December from 8am to 2pm and Tuesday 22 December from 8.30am to 1.30pm.

Contents Pa

Cooney Reserve

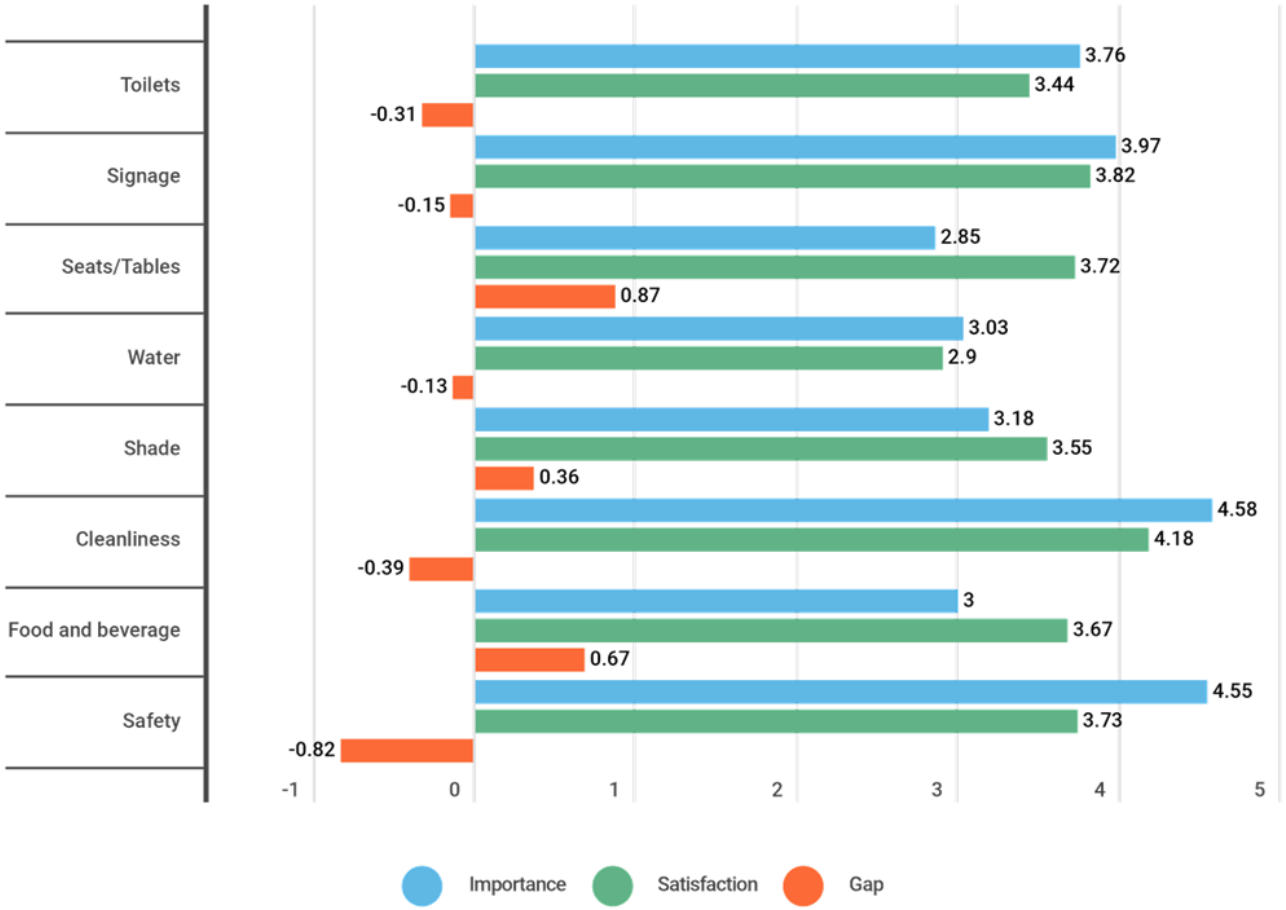


Chart 23. Cooney Reserve results for features

The 33 respondents surveyed at the Cooney Reserve location were more than satisfied with food and beverage availability, furniture and shade as these features all have a positive service gap indicating that there is no unmet need identified. There are small and insignificant gaps for toilets, drinking water, trail cleanliness and trail signage. The most significant gap is for trail safety.

Intercept surveys were carried out on Saturday 19 December from 8.30am to 3pm.

Contents Pa

Jess Road end

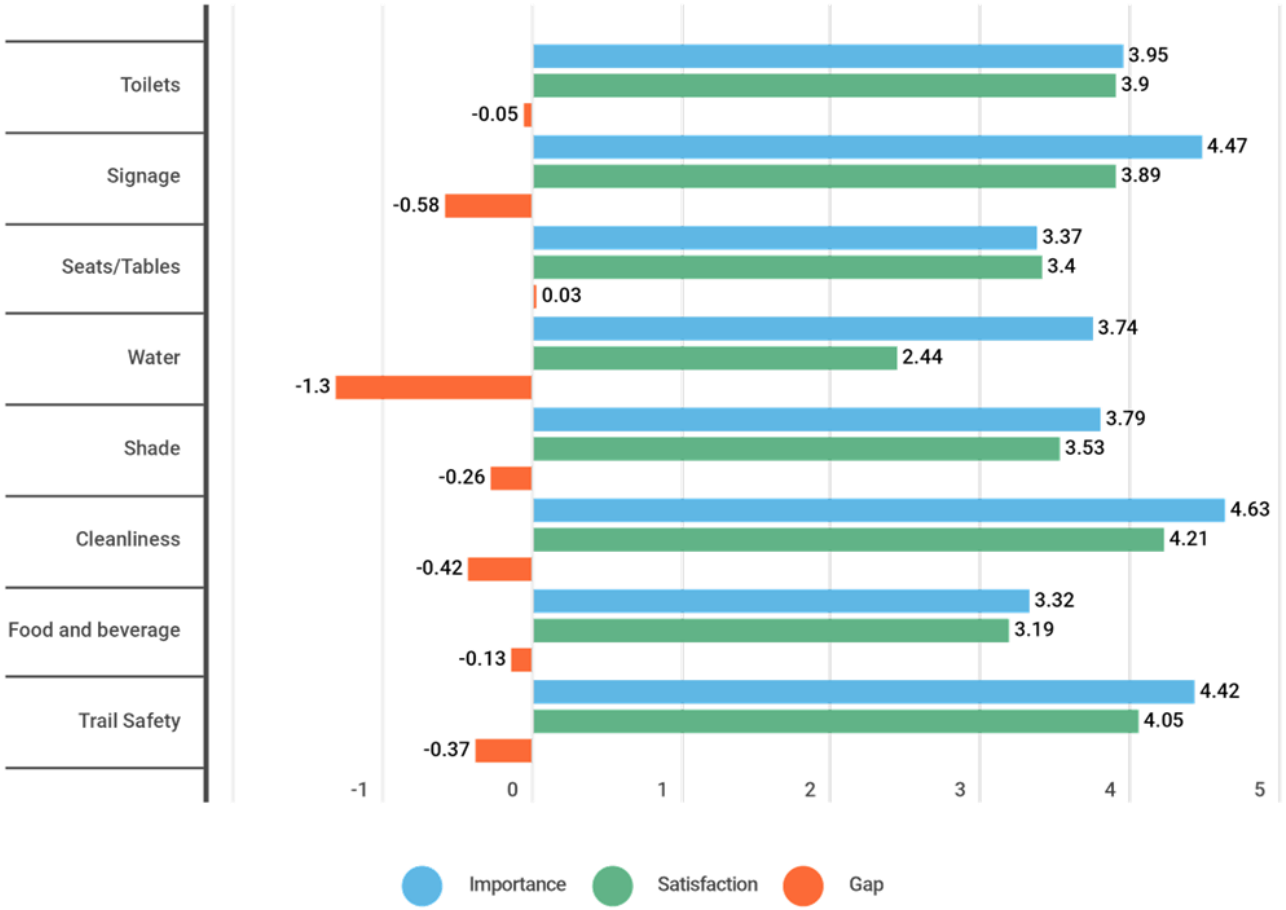


Chart 24. Jess Road end results for features

The 19 respondents surveyed at the end of Jess Road were generally less satisfied than at other physical locations. They were more than satisfied with furniture provision and quality but there are small and insignificant gaps for toilets, trail cleanliness, trail safety, food and beverage availability, shade and trail signage. The most significant gap at this location is for drinking water. This may be due to the location at the top of a steep hill where the lack of water becomes more apparent.

Intercept surveys were carried out on Friday 18 December from 2.30pm to 5pm and Sunday 20 December from 2pm to 4pm.

Contents Pa

Online self-completion surveys

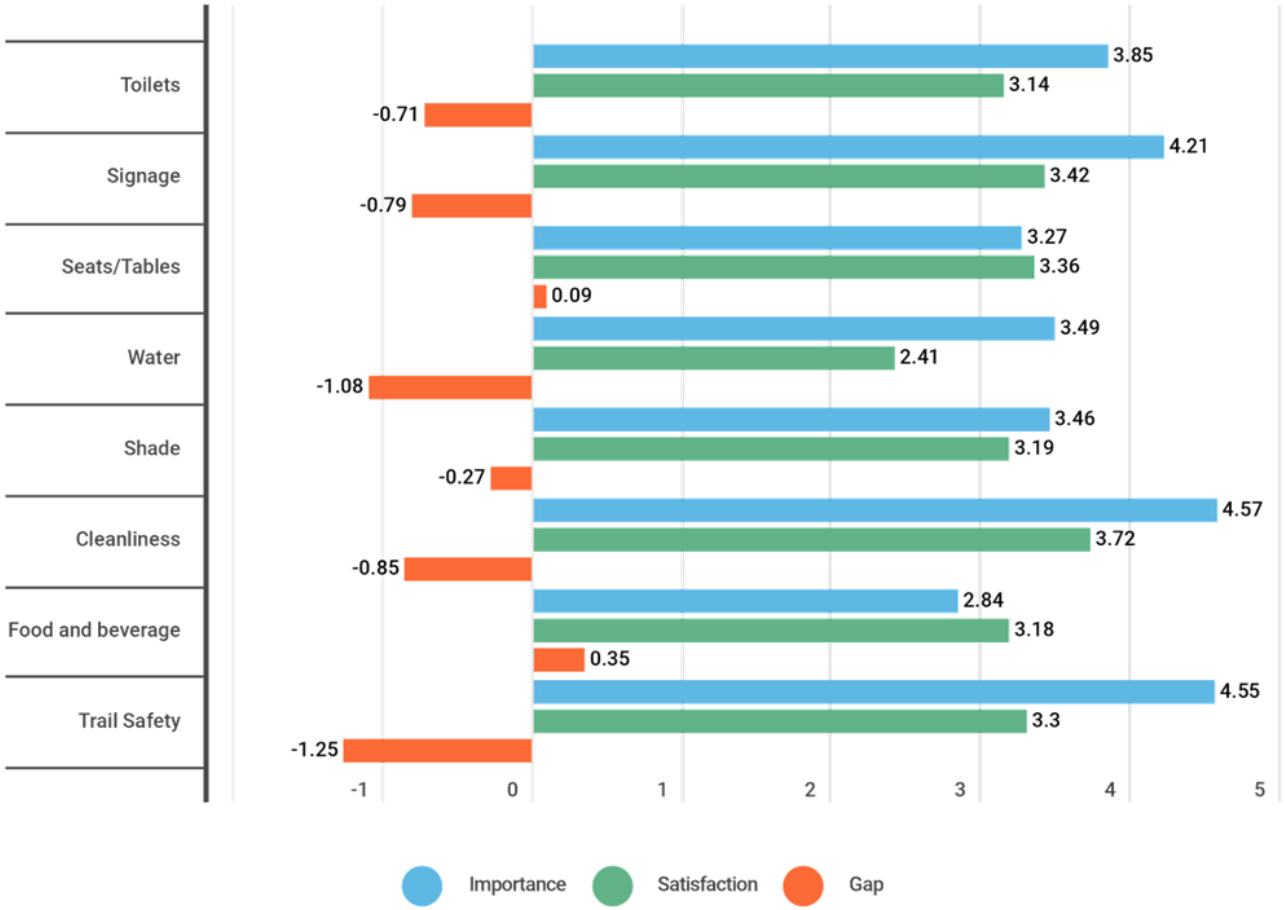


Chart 25. Online self-completion survey results for features

The 67 respondents that submitted online surveys were generally less satisfied than at the intercept survey locations. They were more than satisfied with furniture and food and beverage availability, and there is a small and insignificant gap for shade. The gaps for toilets, trail cleanliness, trail safety, trail signage and drinking water are more significant. The most significant gaps for this group fo surveys are for drinking water and trail safety.

Online survey respondents are self-selecting and may be more motivated to respond to a survey if they have an issue they are concerned about. Online respondents may also feel more comfortable with a negative response than they would if speaking with a researcher. These may be reasons why online respondents identify a larger service gap than intercept survey respondents.

Online surveys have been submitted from 14 December 2020 to approx 1 January 2021.

Contents Pa

User feedback

What did users most enjoy?

Respondents were asked what they most enjoyed about their trail experience. Responses have been sorted into themes as identified in Table 3. Many respondents mentioned more than one theme so the first mentioned was used. Many themes are closely related. Most of the "other" responses related to the good weather during the survey.

Table 3. What did users enjoy most?

Enjoyment themes	Respondent numbers
Scenery and natural beauty	52
Peace and quiet	21
Experience and enjoyment of nature	10
Safe mainly off-road option away from traffic	21
Water views and access	18
Fresh air and exercise	24
Good for dog exercise	8
Social activity	4
Accessible and convenient to use	13
Great overall experience	10
Other reason	12

Chart 26. Most enjoyed trail experience - all respondents

Contents Pa

User feedback

What did users most want to improve?

Respondents were asked what was the one improvement they would make to the trail. Responses have been sorted into themes as identified in Table 4. Although respondents were asked for one improvement, other suggestions were also themed and included in overall numbers.

Table 4. What did users most want to improve?

Improvement themes	Respondent numbers
Transition from Wairoa Bridge to Carmichael Road	51
Maintain/improve trail surface/remove obstacles e.g. bollards	22
Trail etiquette - better signage or education	16
Provide drinking water	14
Slow speeding cyclists	12
Wayfinding/hazard signage	11
Provide more toilets	11
Make more of trail off-road	10
Clear overgrowing vegetation	9
Improve narrow unsafe paths on Borrel Road	8
Provide more refuse bins	8
Extend the trail or link to others	6

The most common theme was the condition and safety of the transition from the Wairoa River bridge to Bethlehem at Carmichael Road. This was mentioned by 51 (25.6%) respondents. Following this was maintenance or improvements to the trail surface, poor trail etiquette and lack of drinking water on the trail. Other themes that had less than 5 mentions included dog poop bins and bags, cafe or coffee cart, improved safety on road sections and better control of dogs.

Contents Pa

Exploring the issues

Wairoa Bridge connection

The incomplete connection from the Wairoa River Bridge to Bethlehem was a concern to 25.6% of respondents. Comments from these respondents raised this as a significant safety issue for the following reasons:

- riders from Bethlehem have to cross the highway and ride against the flow of traffic, or ride in the vehicle lane over the bridge
- coarse gravel at end of clip-on bridge is hard to ride and not safe for road tyres
- barriers at end of clip-on bridge are hard to negotiate especially on coarse gravel
- no barriers between the cycle lane and fast moving vehicles
- cyclists riding in the shade of the bank are difficult to see
- roadwork cones and parked vehicles on road side push cyclists into traffic
- Inadequate signage to advise cyclists what they should do to get across the bridge

How much of a barrier is the bridge connection?

Of the 116 cyclists that rode along the trail, 20 entered the trail at Bethlehem and rode across the Wairoa River bridge. 14 of these cyclists made comment about the safety of the connection between the bridge and Bethlehem. None of the 78 trail walkers or runners that responded to the survey entered the trail at Bethlehem.

51 respondents felt that the connection from the bridge to Bethlehem was inadequate and unsafe. This number included the 14 cyclists that actually rode this section of the route. It is possible that the other 37 respondents (18.6% of users) would make use of the bridge and Bethlehem section of the trail if it were completed safely.

18 of the 116 cyclists drove to the trail from the Tauranga side of the Wairoa River. Only two of these respondents consider themselves local to the trail (within walking or cycling distance) and one made the comment that they would not ride on the State highway due to the danger. The remaining 16 of the 18 Tauranga City cyclists that drove to the Western Bay side of the bridge don't consider themselves local to the trail, suggesting that distance may also be a barrier to cycling to the start of the trail in Bethlehem. However, if the trail connected safely to Bethlehem these people may consider themselves close enough to the start of the trail to ride instead of drive. The increasing use of e-bikes is increasing the distance that recreational cyclists can comfortably ride and is likely to increase demand on cycle trails and the connections between them.

Contents P

Maintaining or improving the trail surface

The condition of the trail surface was a concern to 22 respondents (11%). The specific issues raised varied with the type of user. Most comments related to the condition and maintenance of the gravel surface and erosion or wear in some areas particularly at bridges where a lip can develop and become a trip hazard. Others would prefer that the gravel is replaced with concrete or smooth seal, or that a finer grade of gravel is used. Others feel that the fine gravel creates a slippery surface. Care needs to be taken with selection of surface materials to create a suitable surface for both cycling and running.

Obstacles were also noted by several users, particularly bollards at the Huharua Park and Cooney Reserve car parks where the trail enters the parking area. These transition points were designed for pedestrians and are not suitable for cyclists.

Trail etiquette and speeding cyclists

Poor trail etiquette was mentioned by 16 respondents, and speeding cyclists by 12 respondents. These are related issues that are common to shared use trails. Cyclists are perceived to be travelling too fast when they are moving quickly in relation to other users such as walkers and slower cyclists. Several respondents mentioned that there is a small group of cyclists that regularly use the trail at high speed and are rude and aggressive to other users. It was felt that these cyclists were endangering other users and that their behaviour was not appropriate on a shared use path. One cyclist mentioned that he regularly rides at 30km/hr which he was quite pleased with but is too fast for a shared use path.

The increased use of e-bikes has created an entire sub-group of riders that can easily move at speeds greater than their skill level and experience. These riders may be a potential hazard to themselves and others on the trail.

Other aspects of poor trail etiquette include the use of ear buds and headphones by walkers, runners and cyclists so that they can't hear other users, walking dogs off the leash, and groups occupying the entire width of the trail.

Better signage is needed to remind users to respect other users, share the path and behave responsibly.

Contents Pa

Lack of drinking water

A lack of access to drinking water on the trail was noted by 14 respondents. Although most trail users bring their own water sufficient for the length of time they plan to be out, many felt that there should be somewhere that they could replenish drinking water if needed. The lack of drinking water was especially noted by respondents surveyed at the Jess Road end and online respondents.

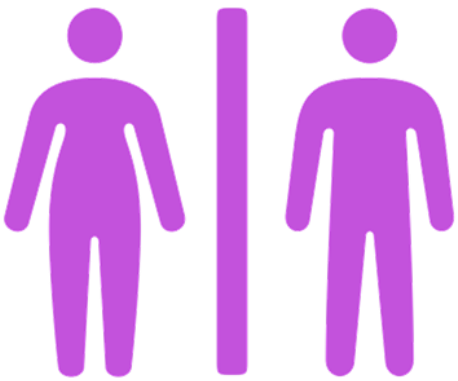
A tap with a bottle filler and a dog watering bowl would be a useful addition to Huharua Park as this area is also used for dog exercise and freedom camping and there is no water source other than hand basins.

Wayfinding signage

Inadequate signage was mentioned by 11 respondents, 7 of which were first time users. Wayfinding signs are present but are small and not always easy to see or read, especially for riders moving at speed. Some found it difficult to find their way to the start of the trail - others got lost while on the trail. Several riders travelling from Plummers Point to Te Puna missed the sign at the bottom of the hill on Jess Road and continued to the end of the road before intercepting the trail by accident. The mobility scooter rider surveyed at Huharua Park had also been out on the trail the previous day and had missed the turn from Te Puna Road onto Borell Road. He had ended up on SH2 and had travelled several kilometres up the highway verge on his mobility scooter to get back to Omokoroa.

Signage is also needed to advise trail users of toilet locations, destinations, hazards and distance to the trail end. The current level of signage may be sufficient for local residents who know their way around, but is inadequate for new and irregular users.

Toilets



The need for more toilets was mentioned by 11 respondents. There are toilets located at the Wairoa River Bridge, Kotuku Reserve, Huharua Park and Omokoroa Domain. Most respondents did not know where the toilets on the trail were unless they were locals familiar with their section of the trail. Several respondents suggested the Cooney Reserve as a location for toilets, particularly as this location is used for freedom camping. Better signage would help users to find existing toilets.

Contents Pa

Make more of the trail off-road

10 respondents suggested that the trail would be improved if more of it was off-road rather than using local roads. In addition to this, a further 3 respondents felt that the safety of on-road sections could be improved. Safety was given as the reason for some of these improvements, but in general it seemed to be considered an enhancement rather than a necessity.

Overgrown vegetation

Overgrown vegetation impeding on sight lines and narrow sections of the trail were mentioned by 9 respondents. The worst sections were the Jess Road estuary section where vegetation is reducing sight lines and making it difficult to see oncoming traffic. The other sections are along the narrow paths on Te Puna Road and Borell Road where vegetation is impinging on the path.

Narrow paths unsafe for shared use

Borell Road was mentioned by 8 respondents as being inadequate and unsafe for use as a shared or cycle path. The path is built to footpath width and has many driveway entrances crossing it with poor visibility for both trail users and crossing vehicles. The path also has obstacles (power poles and vegetation) that require users to manoeuvre around them. Much of this section of the trail is sloping so cyclists travel at speed on the down slope. This section of the trail is potentially hazardous, and would be better located on the opposite side of the road.

Another section mentioned as being too narrow for shared use is the section between Cooney Reserve and the Omokoroa Esplanade. Mirrors were suggested to improve visibility on blind corners.

Dogs on the trail

Dogs were mentioned in several comments; more dog poop bags and bins, better signage in dog and wildlife areas, dogs on leads, and more dog friendly.

The trail passes through Huharua Park which is the only off-leash dog park in the area. This park is well used by dog owners who report that they are regularly abused by cyclists for not having their dogs on a leash where the trail passes through the off-leash area. Better signage is needed at Huharua Park to inform cyclists to beware of unleashed dogs on the trail. Better signage is also needed on other parts of the trail to inform dog walkers that they must leash their dogs. Better signage is also needed in wildlife nesting areas to remind dog owners to keep dogs away.

Contents Pa

Other themes

Suggested safety improvements

- remove timber edging and spacers from Cooney Reserve to Esplanade as these are very slippery when wet and have apparently caused many accidents.
- rails on boardwalks
- widen trail and eliminate blind corners

Stop freedom camping - trail users have noticed that the toilets at Huharua Park are not as clean since freedom campers have been using this area.

More opportunities for refreshments along the trail, especially at weekends when there is no coffee cart at the Wairoa River Reserve.

Extend the trail or provide better links to other trails - users want more of this, preferably in their own neighbourhood

More bins for refuse and dog poop - one Omokoroa resident claimed that the trail is clean and tidy only because local users pick up litter and take it home as there are not enough bins.

9.10 OPERATIONAL RISK REPORT FEBRUARY 2021

File Number: **A3942809**

Author: **Gary Allis, Deputy Chief Executive**

Authoriser: **Gary Allis, Deputy Chief Executive**

EXECUTIVE SUMMARY

To advise the Performance and Monitoring Committee about current items of operational risk, covering capital projects and operations.

If the risk outcome requires Committee or Council direction or approval, there will be a separate decision report for that item.

RECOMMENDATION

That the Deputy Chief Executive's Report dated 2 February 2021 and titled 'Operational Risk Report February 2021' be received.

BACKGROUND

This report has been developed to provide a focus on operational risk and is separate to the risk items identified in reports to the Audit and Risk Committee.

The report does not cover the strategic and litigation risk that is reported to the Audit and Risk Committee.

The operational risk table has been developed to show:

- Project or activity;
- Brief description of the risk and why it has arisen;
- Type of risk (e.g. timing, financial, service delivery); and
- Traffic light system:

Green: Operational item, for information;

Orange: Potential to escalate, Council needs to be aware; and

Red: High risk, Council direction may be required.

Where items are significant or require further explanation, a PowerPoint presentation will be undertaken at the meeting. An update will be provided on current projects at the meeting.

Topic and Description	Risk Type	Risk Level
Waihi Beach Wastewater The SAS treatment pond liner has failed due to damage caused by a mechanical failure. The liner had to be removed and needs to be replaced. Replacement of the liner requires de-sludging the settlement ponds and shifting the aerators and stirrers. Constructing an additional storage pond and installing some temporary pipework and electrical cabling so that the wastewater can be continued to be treated in this temporary location. This will allow the main SAS Lagoon to be drained and repairs carried out. The plant has been operating without a liner. Indicative cost $1M plus. Insurance claim being lodged. The insurance assessor has been appointed and meetings held. Further information is being provided. The plant has transitioned to the temporary ponds and has been operating at a satisfactory level over December and January.	Environmental breach of consent conditions. Financial.	
2 Mile Creek The contract was tendered in July 2020 and the responses were analysed. The tender values were significantly above budget. An alternative design has been developed and is currently in a price negotiation process. Project construction is on hold pending negotiations. The budget for 2021/22 will be underspent.	Timing Cost Land Entry	
Omokoroa Industrial Road The timing of the industrial road is subject to landowner agreement, which has now been reached. Construction is planned to occur in the 2020/21/22 construction seasons as one of the CIP projects. However, the timing is subject to land acquisition and coordination with NZTA over stormwater and intersection location.	Timing	
Transportation – LCLR Work Category The Council strategy has been to utilise the NZ Transport Agency LCLR 3-year allocation over 2 years and seek an additional allocation for year 3 (2020/2021). The application is currently under review by NZ Transport Agency. If the application is unsuccessful, the 2020/21 roading programme will be reduced and a larger portion unsubsidised.	Financial Timing	
Omokoroa to Tauranga Cycle trail The issue of pedestrian / cyclist conflicts and cyclist / vehicles at the entranceways on Borell Road and Snodgrass Road has been raised. A safety audit has been completed and remedial options being planned. User numbers on the trail are increasing. Refer to the separate information report “Omokoroa to Tauranga Cycle Trail – User Survey” in this agenda.	Public Reaction Safety Cost	

Seal Extension Programme There is a risk to the timing and delivery of the seal extension programme due to the Tangata Whenua feedback. This has the potential to affect Mountain Road and Tirohanga Road. Correspondence has been sent to Mr Rolleston advising him of the Council decision to proceed as planned with the Tirohanga Road Seal Extension. The current seal extension programme is expected to be completed this financial year. A new programme will be developed for the elected members' consideration before the end of the financial year.	Tangata Whenua Feedback Timing	
CIP and Three Waters Reform Projects There are a significant number of new projects for delivery over the next two years. Resourcing and consenting is a risk to delivery.	Contractor, consultant and staff resources Consenting	
Te Puke Wastewater Treatment Plant The plant requires upgrading to meet the consent conditions and to increase capacity for RBP and local growth. This is the first stage of a 2-stage project. Stage 1 is around $20M and will be delivered over three years.	Design Cost Upgrade Cost Physical Works Timing	

10 INFORMATION FOR RECEIPT

11 RESOLUTION TO EXCLUDE THE PUBLIC

RECOMMENDATION

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

The general subject matter 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 of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48 for the passing of this resolution
11.1 - Operational Risk Report February 2021 Confidential	s7(2)(h) - the withholding of the information is necessary to enable Council to carry out, without prejudice or disadvantage, commercial activities	s48(1)(a)(i) - the public conduct of the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under section 6 or section 7